

**COMPARITIVE STUDY BETWEEN EFFICACY OF  
ORAL MISOPROSTOL & VAGINAL MISOPROSTOL & FOLEY  
BULB WITH OXYTOCIN INDUCTION IN PROLONGED  
PREGNANCY AND STUDY OF MATERNAL & FETAL  
OUTCOME**

**Dissertation submitted to**

**THE TAMILNADU DR. M. G. R. MEDICAL UNIVERSITY**

**in partial fulfillment of the regulations  
for the award of**

**M. S. DEGREE IN OBSTETRICS AND GYNECOLOGY**



**GOVERNMENT MOHAN KUMARAMANGALAM**

**MEDICAL COLLEGE, SALEM.**

**APRIL 2016**

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Certified that this dissertation entitled '**COMPARITIVE STUDY BETWEEN EFFICACY OF ORAL MISOPROSTOL & VAGINAL MISOPROSTOL & FOLEY BULB WITH OXYTOCIN INDUCTION IN PROLONGED PREGNANCY AND STUDY OF MATERNAL & FETAL OUTCOME**' is a bonafide work done by **Dr. S. MALINI** post graduate student of Obstetrics and Gynecology, Government Mohan Kumaramangalam Medical College, Salem during the academic year 2014-2015.

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# **DECLARATION**

## **DECLARATION BY THE CANDIDATE**

I here declare that this dissertation entitled **““COMPARITIVE STUDY BETWEEN EFFICACY OF ORAL MISOPROSTOL & VAGINAL MISOPROSTOL & FOLEY BULB WITH OXYTOCIN INDUCTION IN PROLONGED PREGNANCY AND STUDY OF MATERNAL & FETAL OUTCOME”** is a bonafide and genuine research work carried out by me under the guidance of **Dr.K.Muruga Lakshmi , M.D, DGO., Professor & Head of the Department**, Department of Obstetrics and Gynecology, Government Mohan Kumaramangalam Medical College, Salem.

I have not submitted this previously to this university or any other university for the award of any degree or diploma

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# **ACKNOWLEDGEMENT**

## **ACKNOWLEDGEMENT**

I gratefully acknowledge and sincerely thank our beloved former **Dean, Dr.MOHAN M. S.**, Government Mohan Kumaramangalam Medical College and Hospital for kindly giving me the permission for conducting this study.

I am also thankful to **Dr. R.RAVICHANDRAN MS MCH.** present Dean, Government Mohan Kumaramangalam Medical College and Hospital for his whole hearted co-operation and support for the completion of this dissertation.

I am grateful to **Prof. Dr. K.MURUGALAKSHMI M.D., DGO.,** Professor and Head of the Department of Obstetrics and Gynecology, **Prof. N.Geetha M.D.,** Government Mohan Kumaramangalam Medical College and Hospital, for permitting me to do the study and for her encouragement.

I extend my sincere thanks to our former Prof and Head of the department **Dr.V.SINDHUJA M.D., DGO.,** for her valuable suggestions and guidance.

I am sincerely grateful to the **Assistant Professor Dr.R.MANIMEGALAI, M.D, DGO.,** for her guidance and help in conducting the study.

I extend my sincere thanks to all the Assistant Professors of Obstetrics and Gynecology for their valuable guidance and encouragement. I am also thankful to my colleagues for their full cooperation in this study and my sincere thanks to all my patients who cooperated for this study.



I sincerely thank my family and my husband for successfully completing this study.

## Grade

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M.D DEGREE IN OBSTETRICS AND GYNECOLOGY  
BRANCH II

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## **Minutes of Meeting:**

Ref.No.5694/MEI/P.G/2015 Office of the Dean,

Govt.Mohan Kumaramangalam,

Medical College, Salem-30.

Dated: 02.2015

Ethical committee meeting held on 08.01.2015 at 11.00 A.M in the seminar hall, IInd Floor, Medicine Block, Govt.Mohan Kumaramangalam Medical College Hospital, Salem 01

The following members were attended the meeting

### **MEMBERS:**

1. Dr.N. Mohan, MS., FICS. FMMC. Dean, Govt.Mohan Kumaramangalam Medical College Hospital, Salem.
2. Dr.A.P.Ramasamy, MD., Chairman, ECRB, External Clinician.
3. Dr.V.Dhandapani, MD., Deputy Chairman, External Social Scientist, ECIRB.
4. Mr.S.Shanmugham, BSc. BL, Advocate, External Legal Expert.
5. Mrs. Ruby Thiyagarajan, Secretary, YWCA, Salem-Social Worker.
6. Dr.T.Swaminathan, MS., Medical Superintendent, Govt Mohan Kumaramangalam Medical College Hospital, Salem.
7. Dr.S.Mohamed Musthafa, MD., Vice Principal, Govt Mohan Kumaramangalam Medical College Hospital, Salem.
8. Dr.S.Vijayarangan, MD., Associate professor of Pharmacology, Govt Mohan Kumaramangalam Medical College Hospital, Salem.
9. Dr.Priya Jeyapal, MD., Professor and HOD of Biochemistry, Govt Mohan Kumaramangalam Medical College Hospital, Salem.

Sl.No	Name of the Presenter with Address	Title	Name of the Guide and Address	Whether it is approved or Not
1	Dr.S.Malini, II Year MS., P.G Student, GMKMC, Salem-30	Comparative study between Efficacy of Oral misoprostol & Vaginal misoprostol & Foley bulb with Oxytocin induction in prolonged pregnancy and study of maternal & Fetal outcome in GMKMCH.	Dr. V.SINDHUJA, M.D, DGO., Professor & HOD, Obsterics and Gynecology, GMKMC, Salem.	Approved

The ethical committee examined the studies in detail and is pleased to accord ethical committee approval for the above Post Graduate of this college to carry out the studies with the following conditions.

1. She should carry out the work without detrimental to regular activities as well as without extra expenditure to the institution to government.
2. She should inform the institution Ethical Committee in case of any change of study procedure site and investigation or guide.
3. She should not deviate from the area of the work which applied for ethical clearance.
4. She should inform the IEC immediately, in case of any adverse events or serious adverse reactions.
5. She should abide to the rules and regulations of the institution.
6. She should complete the work within the specific period and apply for if any extension of time is required she should apply for permission again to do the work.

7. She should submit the summary of the work to the Ethical Committee on completion of the work.
8. She should not claim any funds from the institution while doing the work or on completion.
9. She should understand that the members of IEC have the right to monitor the worker with prior intimation.

**Dr. R..RAVICHANDRAN M.S., MCH.,**  
**Dean**  
Govt..Mohan Kumaramangalam Medical College,  
Salem.

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## **ABSTRACT**

### **STUDY BACKGROUND AND SIGNIFICANCE:**

Induction of labour is being the most common Obstetric procedure .Recently many methods are experimented for induction of labour in prolonged pregnancy(>41 Weeks).Misoprostol is a newer Prostaglandin that is effectively used for labour induction.Misoprostol can be used either orally or vaginally. Since there are no conclusive information about effectiveness of the induction methods, this study is undertaken to compare intracervical foley catheter with oxytocin, vaginal and oral Misoprostol in Prolonged pregnancy.

### **METHOD:**

It is a Prospective randomised control trial among women with prolonged pregnancy with a vital singleton in cephalic presentation,unfavourable cervix with intact membranes.Women will be randomised to Foley induction or oral Misoprostol and Vaginal misoprostol , each of 100 after obtaining informed written consent.Oral and Vaginal Misoprostol are administered as 25ug every 4hrs maximum of 3 doses and pelvic examination done every 4 hrs. 16 French Foley catheter inserted intracervically & bulb inflated with 80 ml of normal saline.Pelvic assessment done after 12hrs if the inflated balloon is not passed spontaneously. For all patients progress of labour will be monitored with partograph

## **RESULTS:**

The primary outcomes were -The improvement in Bishop score was similar in Oral and Vaginal Misoprostol and was lesser in Foley group ,Mean induction to delivery interval was shortest in oral Misoprostol group(8.82 hrs) compared to vaginal misoprostol(8.88hrs) and foley group -13.72 hours and was found to be statistically significant( $P<0.001$ ). Labour natural was maximum in oral Misoprostol group-84% compared to 73% in Foley group, 78% in Vaginal Misoprostol group. Oral Misoprostol had good perinatal outcome with minimal maternal side effects. Oral and vaginal misoprostol required similar number of doses with similar cost.

## **KEYWORDS:**

Prolonged pregnancy, Induction of labour, oral misoprostol, foley catheter, vaginal Misoprostol, Induction delivery interval, unfavourable cervix, Bishop score, Hyperstimulation, Apgar score  $<7$ .

# **INDRODUCTION**



## **INTRODUCTION**

Induced labour is one in which pregnancy is terminated artificially. It causes uterine contractions, progressive dilatation and effacement of cervix. History reveals an understandable reluctance to interfere with the course of labour by hastening the onset because the methods were uncertain, bizarre & often dangerous. However penalties of failure and hazards of prolonged labour have been recognized for centuries and influenced ideas in Obstetrics. Now induction of labour has become most popular in modern obstetrics.

The reasons for the rising rates of induction of labour are:

- Improved ability of Physicians to determine gestational age accurately with early dating scans, thus avoiding the possibility of Iatrogenic prematurity.
- Wide spread availability of cervical ripening agents
- Improved knowledge of methods and indication for induction.
- More relaxed attitude towards marginal/elective indications both of Physicians and the patient
- Litigation constraints.

There are numerous indications for the labour induction. It includes Obstetric conditions and Medical conditions aggravated by pregnancy.

**MEDICAL CONDITIONS:****MATERNAL:**

1. Hypertensive Disorders of pregnancy
2. Diabetes
3. PROM
4. Other conditions where continuation of pregnancy does not outweigh termination and it is beneficial to mother and fetus.

**FETAL:**

1. Post-term
2. Intra uterine growth restriction
3. Oligohydramnios
4. Lethal fetal anomalies
5. Intra uterine fetal Demise

A successful induction of labour aims at healthy mother and baby without any morbidity or mortality. Failure of induction occurs due to various reasons and may resort to cesarean section. The indication, method of induction, progress, complications and success rate varies from patient to patient.

Prolonged pregnancy is defined when the gestational age is more than 41 completed weeks.

Post dated pregnancy is defined as the pregnancy that lasts for more than 42 weeks and when signs of placental insufficiency in the new born such as loss of subcutaneous fat and passage of meconium are present.

Incidence of Prolonged pregnancy is 11%. Prolongation of pregnancy beyond 40 weeks occurs in 1 in 10 pregnancies. Prenatal morbidity and mortality is high in prolonged pregnancy. Cesarean rate is high in prolonged pregnancy.

Hilder et al demonstrated that the risks of still birth and infant mortality increase significantly in prolonged pregnancy when expressed per 1000 ongoing pregnancies.

Associated morbidity includes an increased risk of fetal distress, shoulder Dystocia, labour dysfunction, obstetric trauma and perinatal complications like meconium aspiration syndrome, asphyxia, fractures, nerve injuries, septicemia and Pnuemonia.

Since there are no conclusive information about effectiveness of the induction methods, this study is undertaken to compare intracervical foley catheter with oxytocin, vaginal and oral Misoprostol in Prolonged pregnancy.

## **AIM OF THE STUDY**

The present study is undertaken to compare the safety and efficacy of 25ug oral Misoprostol with that of 25ug vaginal Misoprostol & Foley bulb with Oxytocin induction in prolonged pregnancy (>41 Weeks) & study of the maternal & fetal outcome.

## **OBJECTIVES**

- To study the effect on labour induction and compare the induction – delivery interval
- To compare the mode of delivery between 3 groups.
- To compare the maternal and fetal outcome between 3 groups.
- To assess the cost effectiveness between 3 methods of induction.
- Compare the response between Primipara and Multipara

## REVIEW OF LITERATURE

Human labour is a complex process and is characterized by the onset of effective uterine contractions leading to progressive effacement and dilatation of cervix resulting in expulsion of fetus, placenta and membranes. **‘Prelabour’** is characterized by both cervical ripening and myometrial excitement which finally culminate into labour. Induction implies stimulation of contractions before spontaneous onset of labour, with or without ruptured membranes<sup>15</sup>.

According to the National centre of Health Statistics the incidence of labour induction in United States has more than doubled from 9. 5% in 1991 to 22. 5% in 2006<sup>15</sup>

The ancient view that labour might be delayed because of perversity and unwillingness of the fetus to emerge into this naughty world, now we recognise as not so far off the mark<sup>25</sup>.

### **An ideal inducing agent is one which:**

- Achieves onset of labour within the shortest possible time.
- Does not result in greater pain and hence does not require greater analgesics as compared to spontaneous labour.
- Has a very low incidence of failure to induce labour.
- Does not increase the rate of cesarean section or operative vaginal deliveries as compared to spontaneous labour.
- Does not increase the perinatal mortality as compared to the spontaneous labour.

Massage of the breasts and uterus have been tried in ancient times. In sixth century cervical tents were used. Digital dilatation of cervix was also experimented.

Manual dilatation of cervix was first studied by CELSUS which gradually lost its importance. In 1756 DENMAN described artificial rupture of membranes<sup>33</sup>-which is a low membrane rupture which had disadvantages of chorioamnionitis. Hindwater rupture with DREW SMYTHE catheter was introduced in 1931 which preserved forewater and reduced the risk of chorioamnionitis and cord prolapse<sup>33</sup>.

In 1856 SCANZONI used hot Carbolic acid douche, KRAUS introduced bougies which lost its use due to high sepsis rate and risk of detachment of placenta. KIWISCH used vaginal douche.

Application of Pitocin to the pregnant uterus was described by BLAIR BELL in 1909<sup>33</sup>. Pitocin was first extracted from Posterior Pituitary. It was used for uterine inertia but mortality was reported with its intramuscular use.

Induction of labour with oxytocin was first described by THEOBALD in 1952. In 1968 TURNBULL and ANDERSON studied the methods of titration of Oxytocin to use the optimum dose for better results.

Prostaglandin was first isolated by ULF VON EULER at Karolinska institute in stockholm in 1935. Three Biochemists –BERGSTROM, SAMUELSON, VANE jointly received Nobel prize in 1982 for the discovery of Prostaglandin. Oral Prostaglandin was reported by KARIM & SHARMA.

Different methods of use of Prostaglandin have been studied. Intravaginal and intracervical application have given different results. MELLOWS and WILSON studied intravaginal prostaglandin. EMBREY studied intracervical Prostaglandin.

Laminaria tent was used by WILSON. Hygroscopic nature of the tents make it swell after insertion and thus causes cervical dilatation.

GUINN made a comparative study between catheter infusion with oxytocin, Laminaria with oxytocin & intracervical Prostaglandin by which he concluded that catheter infusion was better than the other two.

Extra amniotic saline infusion was studied by SHERMAN, he compared catheters with and without saline infusion and reported the improvement in Bishop score and successful vaginal deliveries. There was a decrease in the rate of Cesarean section.

BARNES was the first to study the cervical dilatation with balloon catheter. COHEN used extra amniotic fluid to induce labour. EMBREY studied Prostaglandin applied extra amniotically.



Electrical stimulation of labour was experimented by SCHREIBER.

Intracervical Foley catheter was studied by EMBREY and MOLLISON.  
MANABE and MATVABE reported the mechanism of induction of labour with  
Foley catheter.

ABRAMOVICI compared catheter infusion with oral Misoprostol.

GOLDMAN and WIGTON compared catheter infusion with intracervical  
prostaglandin.

Studies show variable results about the attitudes of women towards  
induction. one study showed that 78% of women following an induction prefer not  
to get induced in next pregnancy(Cartwright 1977).

More recent studies show a better response. Sandhu and Sandhu (1995)  
showed that 65% of women opted for induction for the next pregnancy.

Nuutila et al 1999 demonstrated that a positive attitude imparted to the  
women when she is actively involved in decision making, not only increases the  
chances of success of induction but also enables her to better face the  
consequences.

## **PHYSIOLOGY OF CERVICAL RIPENING**

Cervical ripening is defined as facilitation of dilation when labor begins in a previously unfavourable cervix.

Cervix plays an important role in pregnancy.

Cervix is composed of: Type I collagen-66%

Type II collagen-33%

The firm consistency of the cervix is provided by the collagen bundles which are embedded in the proteoglycans.

The Glycosaminoglycans in the cervix are the Dermatan sulphate and Chondroitin sulphate which gives firmness to the cervix due to its hydrophobic character. Orientation of the collagen fibrils by the glycosaminoglycans provides the mechanical strength of the cervix. The cervix which is firm during the pregnancy should become soft during labour. This is brought about by the collagenase enzyme which increases towards term gestation. Collagenase is produced by the fibroblasts and leucocytes. It breaks down Type I, II, III collagen.

The precursor of Collagenase, Procollagenase production is influenced by Prostaglandin which causes ripening of cervix.

### **FACTORS THAT AFFECT CERVICAL RIPENING<sup>10</sup>:**

<b>FACTOR</b>	<b>MECHANISM OF ACTION</b>
Changes in ground substance(glycosaminoglycans)	Increase water content of the cervix and cause 'scattering and dispersion' of collagen. Increase formation of immature collagen
Enzymes and inflammatory mediators (elastase, collagenase)	Increase collagen breakdown and remodeling

Leucocyte elastase is produced by neutrophils and Eosinophils. Collagen, elastin and Proteoglycans are broken down by Leucocyte elastase.

Hence, Enzymes and inflammatory mediators increase collagen breakdown and remodelling of cervix.

Change in Glycosaminoglycans causes scattering and dispersion of collagen by increasing the water content of the cervix.

Water content of the non pregnant cervix is 80% which increases to 86% in late pregnancy. Dermatan sulphate and chondroitin sulphate are replaced by Hyaluronic acid which imbibes water due to its hydrophilic nature causing destabilisation of the collagen fibrils towards term.

### **CHANGES RESPONSIBLE FOR CERVICAL RIPENING<sup>10</sup>:**

Dermatan /Chondroitin sulphate(hydrophobic)



Replaced by Hyaluronic acid(hydrophilic)



Imbibes water-‘soft’



Destabilises collagen fibrils



Soft compliant Cervix ‘Cervical Ripening’

Cervix loses its elasticity, viscosity and plasticity during labour.

Cervix which is firm in early pregnancy ripens in prelabour & Effacement and dilatation occurs during labour. Myometrium which is quiescent in early pregnancy is excitable in prelabour and contracts during labour.

### **CHANGES OCCURING IN THE CERVIX AND MYOMETRIUM<sup>10</sup>:**

	<b>CERVIX</b>	<b>MYOMETRIUM</b>
Pre-pregnancy/Early pregnancy	Firm	Quiescent
Pre-labour	Ripening	Excitable
Labour	Effacement and dilatation	Contraction and Retraction

**RELAXIN:**

Its main action appears to be the activation of collagenases. It is known to decrease the myometrial contractility. It acts through the inositol triphosphate second messenger system by decreasing the availability of intracellular ionic calcium levels. This in turn results in the reduction of myosin light chain kinase activity.

The overall effect is reduction in oxytocin or prostaglandin induced uterine contractions.

The polypeptide hormone Relaxin suppresses the prostaglandin E2 production during pregnancy, stimulates the production during labour because of its dual mechanism of action on the arachidonic acid pathway. It also increases the secretion of collagenases.

Cervical remodelling towards term occurs when the mature collagen is replaced by the immature collagen. Dysfunctional labour occurs when there is abnormal remodelling of cervix.

Progesterone acts to maintain the pregnancy, hence it prevents the cervical ripening during pregnancy.

Common indications for induction of labor includes:<sup>35</sup>

- Prolonged Pregnancy
- Hypertension complicating Pregnancy
- Diabetes complicating pregnancy
- Prelabour rupture of membrane
- Non reassuring Fetal status
- Cholestasis
- 

## **MYOMETRIUM**

The myometrium is essentially composed of smooth muscle cells arranged in longitudinal, transverse and oblique directions as well as in a criss cross manner with intervening blood vessels. This arrangement is often referred to as 'living ligatures' and is the main mechanism of control of postpartum haemorrhage.

Under the influence of the placental sex steroids the myometrium undergoes remarkable growth both by hyperplasia and hypertrophy during pregnancy. Its weight increases by about 15 fold and the intra uterine volume increases by about 1000 fold.

Electron microscopy has shown that the plasma membrane from two opposing cells have intermembranous protein particles called connexins protruding through each membrane and spanning the gap between the membranes. These are called gap junctions and are believed to represent the low resistance pathway to the flow of excitation. They allow communication between two adjacent cells which may be electrical or metabolic or both and also allows the

passage of inorganic ions and small molecules(Cole and Garfield 1986). Electrical signals-action potentials can be rapidly transmitted to all neighbouring cells leading to efficient contraction as functional syncytium. It has been recognised that the development of gap junctions is one of the earliest changes occurring during the process of prelabour.

Actin and Myosin comprises the myofibril which is the structural unit of Myometrial cell. Phosphorylation of Myosin light chain is essential for the interaction between the actin and myosin. This Phosphorylation is carried out by the enzyme Myosin Light Chain Kinase. Calcium is stored within the sarcoplasmic reticulum and mitochondria which gets released by factors like PGE<sub>2</sub>, PGF<sub>2</sub> alpha, oxytocin. Activation of MLCK requires calcium which gets binded as calcium calmodulin complex.

Myometrial contraction is brought about by the Phosphorylation of myosin caused by MLCK in presence of intracellular calcium.

Myometrial relaxation by dephosphorylation of myosin due to inactivation of MLCK with the decrease of intracellular calcium.

Sensitization of myometrium involves increased expression of several uterine action proteins which includes the oxytocin receptors, prostaglandin receptors, primary gap junction proteins and prostaglandin endoperoxide H synthetase (PGHS-2)<sup>33</sup>.

## **PHYSIOLOGY OF ONSET OF LABOUR**

### **PROSTAGLANDIN:**

It is the 'Final common pathway' responsible for the onset of labour. Levels of prostaglandins and their metabolites increase in amniotic fluid in advanced labour.

Prostaglandin synthesis is influenced by the oestrogen: Progesterone ratio.

Evidence is growing that instead of actual rise in oxytocin and prostaglandin levels, it is probably the increase in their receptors which is essential and serve as trigger for labour<sup>47,48</sup>. Gap junction formation is caused by Prostaglandin.

Sweeping of amniotic membranes causes significant rise in Phospholipase A2 and Prostaglandin F2 alpha<sup>45</sup>.

Factors leading to the increase in Prostaglandin are:

- Vaginal examination with sweeping of membranes
- Artificial rupture of membranes
- Infection
- Cytokines
- Oestrogen
- Glucocorticoids
- Uterine distension



Modification of naturally occurring prostaglandins has resulted in products that are longer acting and effective at lower concentrations, with potential for significant savings in cost. Problems such as intrauterine fetal death and intractable hemorrhage from postpartum uterine atony, which earlier may have required surgical intervention can be managed with Prostaglandin.

Currently, all Prostaglandins used in clinical practice are synthetic. Those like PGE<sub>2</sub>, PGF<sub>2</sub> alpha which retain molecular structure present in nature are called 'natural' while those synthesized with a different structure are called 'analogues'.

### **OESTROGEN:**

Myometrial cell membranes are excitable by oestrogen. Oxytocin release is increased from the maternal Pituitary gland. Prostaglandin synthesis is brought about by the lysosomal disintegration in amnion, accelerated by oestrogen. oxytocin receptors in the myometrium and decidua increases towards term by the oestrogen.

### **PROGESTERONE:**

Fall in the maternal Progesterone is the prerequisite for parturition which is achieved either by increased conversion of progesterone to oestrogen in the placenta or due to degeneration of Corpus luteum<sup>18</sup>.

Though there are no apparent fall in maternal progesterone level in humans, there seems to be a 'functional block' due to the presence of endogenous antiprogesterin, which may be the fetal cortisol and its secretion from fetal adrenal increases towards term<sup>33</sup>.

Prostaglandin synthesis dependent on the variation of oestrogen :progesterone ratio. Fetal production of Dehydroepiandrosterone sulphate is augmented by progesterone. Pregnenalone to progesterone conversion is stopped by cortisol.

#### **FETO-PLACENTAL UNIT:**

Cortisol releasing hormone secretion is increased by the stimulation of the Fetal Hypothalamic Pituitary Adrenal axis which leads to ACTH release. cortisol results in the secretion of oestrogen and prostaglandins from the placenta.

#### **UTERINE DISTENSION:**

The distension caused by growing fetus and increased liquor causes the onset of labour.

#### **NEUROLOGICAL FACTORS:**

Alpha adrenergic receptors found in the cervix and the uterus produces the contractile response.

Both alpha and beta adrenoceptors have been demonstrated in the human myometrium and stimulation of these receptors result respectively in myometrial

contraction and relaxation(Roy and Arul Kumaran 1991). Sex steroids modify the effects. Estrogen causes a reduction in myometrial sensitivity to beta agonist induced relaxation, making the myometrium more excitable.

Both alpha and beta receptors act through second messenger systems via G proteins in the cell membrane.

The uterine myometrium being a smooth muscle shows a typical contractile response to acetylcholine which is the main neurotransmitter in the cholinergic system. Levels of acetylcholine remain unchanged during pregnancy and labour.

This is in contrast to the adrenergic neurotransmitters which show a progressive reduction throughout the pregnancy. Although intravenous acetylcholine induces labour at term very effectively its systemic side effects make it unacceptable for induction of labour.

### **OXYTOCIN:**

Decidual production of prostaglandin is augmented by oxytocin. Artificial rupture of membranes and vaginal examination leads to increase in Oxytocin. This is called the Ferguson reflex. Physiology of labor stimulated by oxytocin follows the physiology of spontaneous labor and it will depend on the sensitivity and the response of the patient. Pharmacokinetics of Oxytocin reveals an uterine response in 3-5 minutes, it reaches a steady level in plasma by 40 minutes. Towards term the sensitivity to oxytocin increases. For the response to

be successful the patient should have lower Body mass index, greater cervical dilatation, parity and gestational age.

**Methods of confirmation of Gestational age:<sup>45</sup>**

- An ultrasound done at less than 20 weeks should be corresponding to the gestational age.
- A Doppler ultra sound should have documented fetal heart sound by 10 weeks of gestational age
- A positive serum or urine HCG pregnancy test by 4 weeks of gestation.

Success of induction of labour depends to a greater extent on the favourability of the cervix or its readiness to go into labour<sup>55</sup>.

The proportion of pregnancies undergoing induction for postterm can be reduced considerably by adapting policy which reconfirms the period of gestation and establishes the expected delivery date on the basis of ultrasound dating prior to 20weeks<sup>3</sup>.

### **BISHOP SCORING SYSTEM<sup>11</sup>**

<b>SCORE</b>	<b>DILATATION (cm)</b>	<b>POSITION OF CERVIX</b>	<b>EFFACEMENT (%)</b>	<b>STATION</b>	<b>CERVICAL CONSISTENCY</b>
<b>0</b>	Closed	Posterior	0-30	-3	Firm
<b>1</b>	1-2	Mid Position	40-50	-2	Medium
<b>2</b>	3-4	Anterior	60-70	-1, 0	Soft
<b>3</b>	5-6	-	80	+1, +2	-

Calder<sup>8</sup> modified the original Bishop score in 1974 which is called the modified Bishop score.

He replaced the 'effacement of cervix' which was assigned as percentage in the original score with the length of cervix.

Cervical length >30mm and wedging <30% of the total cervical length was shown to have better sensitivity than a Bishop score of less than 6 in deciding who needs cervical ripening.<sup>23</sup>

## **METHODS OF INDUCTION OF LABOUR**

### **MECHANICAL DILATATION:**

Done by extraamniotic foley bulb insertion either with saline or without saline. Hygroscopic osmotic cervical dilators have been used. Concerns of ascending infection have to be considered. Their use appears safe, though there had been anaphylaxis following Laminaria insertion<sup>50</sup>. Dilators are attractive because of their low cost, easy placement and removal. In a randomised study there was longer induction delivery interval with dilators. Cervical dilators include Laminaria tent, Lamicel.

### **HORMONAL STIMULATION:**

Relaxin and Estradiol gel are used

### **PROSTAGLANDINS:**

PGE2 in the form of gel, suppository, pessary or pills are used

PGE1-Misoprostol –oral or vaginal route. Intravaginal Misoprostol is either equivalent or superior in efficacy compared with Prostaglandin E2 gel<sup>43</sup>.

### **MIFEPRISTONE**

### **STRIPPING OF MEMBRANES:**

Mccolgin and colleagues reported that stripping was safe and decreased the incidence of prolonged pregnancy. There was a significantly increased serum levels of endogenous prostaglandin with stripping of membranes. Two-third of the women who underwent stripping get into labour within 72 hours<sup>31</sup>. The incidence of ruptured membranes, infection, bleeding is less. Subsequent induction for post term pregnancy at 42 weeks was significantly decreased with stripping.

## **UTERINE MASSAGE**

### **BREAST STIMULATION:**

It is a natural, inexpensive method. It has advantage of onset of labor within 72 hours, less uterine hyperstimulation, less incidence of Postpartum Haemorrhage. There was no difference in the rate of fetal distress and cesarean rate. This is applicable for low risk pregnancies.

Non Pharmacological methods of cervical ripening and induction of labor consists of herbal compound, castor oil, hot baths, enemas, sexual intercourse, breast stimulation, acupuncture, acupressure, transcutaneous nerve stimulation and mechanical and surgical interventions<sup>36</sup>.

### **CESAREAN RATE IN INDUCED LABOUR:**

Cesarean rate is increased in Nulliparas undergoing induction.<sup>21</sup> Two fold to three fold increased cesarean delivery rate<sup>26</sup>. Cesarean rates are inversely related with favourability of the cervix at induction-Bishop score<sup>53</sup>. One to six percent of the patients would require cesarean section for no other reason but failure of the uterus to contract properly howsoever stimulated<sup>34</sup>.

### **NEONATAL OUTCOME:**

Elective induction at 40 weeks compared to expectant management reduced the perinatal mortality but increased the admission rate in the neonatal intensive care unit<sup>38</sup>. Induction of labour increased the risk of non-reassuring fetal heart rate patterns. There was no significant difference in neonatal outcome. Risk of accidental haemorrhage, sepsis, cord prolapse, uterine rupture, failed

induction, prematurity, fetal pneumonia, amniotic fluid embolism differs in different methods of induction.

### **MECHANISM OF ACTION OF FOLEY BULB IN INDUCTION OF LABOUR:**

It acts by exerting pressure when introduced into the cervical canal which stimulates the local release of prostaglandin. Downward tension that is created by taping the catheter to the thigh can lead to cervical ripening. Foley catheter have been used alone or in conjugation with extraamniotic saline infusion and intravenous oxytocin.

EASI-Extra Amniotic Saline infusion consists of constant saline infusion through the catheter into the space between the internal cervical os and the placental membranes<sup>15</sup>. Foley catheter with or without saline infusion lead to rapid improvement in Bishop scores and shorter labor<sup>15</sup>.

Randomized control trials comparing intracervical foley catheter to intravaginal misoprostol for induction of labor showed that the two methods were equally effective. There were no significant difference in the mean time to delivery, rate of cesarean section or chorioamnionitis. Mechanical methods were also associated with reduced risk of hyperstimulation with fetal heart rate changes, meconium stained liquor compared with PGE2 gel and Misoprostol.



Risks associated include infection, bleeding, membrane rupture, placental separation, but there is no adverse effect on the neonatal outcome. Chorioamnionitis was less frequent when infusion was done compared with no infusion -6 versus 16 percent.

Culver and colleagues compared oxytocin plus an intracervical foley catheter with 25ug vaginal misoprostol every 4 hours in women with Bishop scores less than 6. The mean induction delivery interval was significantly shorter in the catheter plus oxytocin group-16 versus 22 hours.

Foley catheter is inserted intracervically and the bulb is inflated and spontaneous expulsion is awaited. It is the choice of the Obstetrician either to wait for the spontaneous expulsion of foley catheter or remove it after a certain period of time. Foley catheter acts by stripping the fetal membrane from the uterine surface which leads to rupture of lysosomes in the decidual cells. Isthmial region when being mechanically stretched causes the production of Prostaglandin E & F. Sherman & colleagues (1996) summarized the result of 13 trials with balloon tipped catheters to effect cervical dilatation.

#### **MECHANISM OF ACTION OF PROSTAGLANDINS:**

Prostaglandins are derivatives of Prostanoic acid and have the property of acting as local hormones. They are inactivated by the single passage through the Pulmonary vascular bed. Of all the varieties of Prostaglandin PGE<sub>2</sub> and PGF<sub>2</sub> alpha are the ones which have significant effect on the uterus and used for the

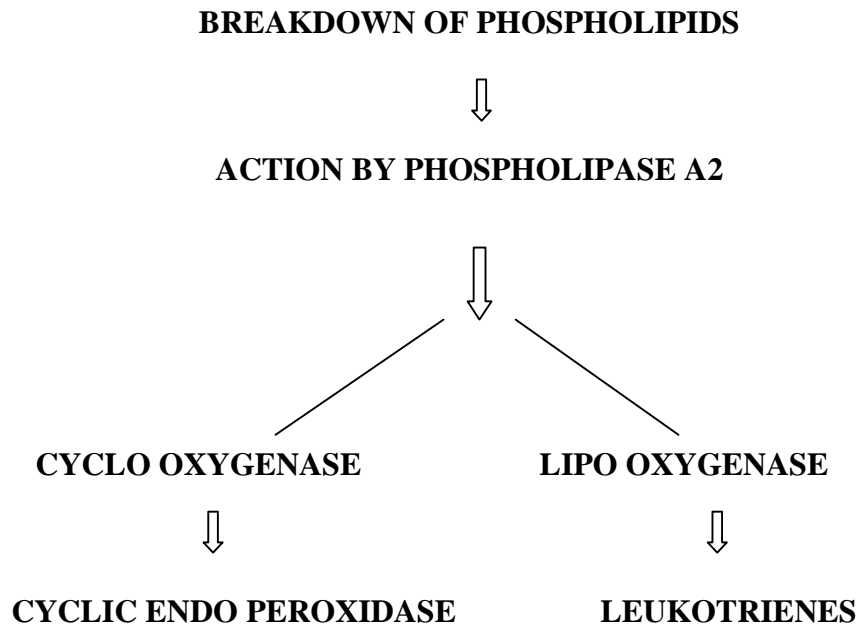
induction of abortion and labour. Recently PGE1 Misoprostol have been found to be equally effective.

Karim and his colleagues in Uganda in 1966 had noted that prostaglandin PGF2 alpha appeared in human amniotic fluid and maternal venous blood in variable amounts during labour which promoted the idea that this substance might play a part in the process of parturition. Early studies of induction of labour used intravenous infusion but it was associated with high incidence of side effects like painful phlebitis, vomiting and Diarrhoea.

Side effects include dizziness, headache, fever, vomiting, diarrhoea, abdominal cramps. It should be used with caution in patients with compromised cardiovascular, renal and hepatic functions, asthmatics, and those with raised intraocular pressure, glaucoma.

Embrey in Oxford extended the study to include PGE2. Stimulant properties of PGE2 were much more greater than PGF2 alpha and the systemic side effects were less severe.

## **MECHANISM OF ACTION OF PROSTAGLANDINS:**



1. Prostaglandin synthetase

PGH<sub>2</sub>-PGD<sub>2</sub>-PGE-PGF

2. Thromboxane synthetase

TXA<sub>2</sub>(Thromboxane)

3. Prostacyclin synthetase

PGI<sub>2</sub>(Prostacyclin)

## **BIOCHEMISTRY:**

Prostaglandins are the members of Eicosanoid family. It has 20 carbon fatty acids with a cyclopentane ring and 2 aliphatic side chains. There are 10

groups of prostaglandins which depends on the side chain and the number of multiple bonds which will decide the group and its action.

Prostaglandins were designated PG1, PG2, PG3 based on the number of double bonds in the polyunsaturated fatty acids from which they were formed. They were initially divided into classes E and F because of their solubility in ether and Phosphate buffer.

The latest addition in Obstetrics is the Misoprostol, a synthetic Prostaglandin E1 analogue. Its usefulness in inducing labour and abortion and a life saving drug in Post partum haemorrhage has been proved.

World health Organisation has included it in its 'list of essential drug' in March 2005. It is cheap and can be stored at room temperature with a long shelf life.

### **SYNTHESIS:**

Arachidonic acid is metabolized by the enzyme Prostaglandin H synthase formerly called fatty acid Cyclooxygenase. The release of arachidonic acid from glycerophospholipids in the plasma membrane has generally been regarded as the rate limiting step in Prostaglandin biosynthesis. Prostaglandin acts through a number of G-Protein coupled receptors. The final pathway involves intracellular cyclic AMP and intracellular calcium. Phospholipids are converted to Arachidonic acid by enzyme Phospholipase A. Prostaglandins are formed from Arachidonic acid.

It is extensively absorbed, undergoing rapid de-esterification to its free acid which is responsible for its clinical activity. On oral administration it reaches the peak plasma level in 10-15 minutes with a half life of 20-40 minutes. The total systemic bioavailability of vaginal misoprostol is three times greater than that of the oral misoprostol.

#### **CATABOLISM:**

15-OH Prostaglandin dehydrogenase causes the degradation of the prostaglandin. The several metabolites are bioactive. This enzyme is mainly localized in the chorion and prevents Prostaglandin from reaching Myometrium in the non-labouring state.

#### **PHARMACOKINETICS<sup>22</sup>:**

<b>ROUTE</b>	<b>ONSET OF ACTION</b>	<b>PEAK CONC</b>	<b>DURATION OF ACTION</b>
<b>Oral</b>	8mins	30mins	2hrs
<b>Sublingual</b>	11mins	30mins	3hrs
<b>Buccal</b>	15mins	75mins	4hrs
<b>Vaginal</b>	20mins	70-80mins	4hrs
<b>Rectal</b>	100mins	20-65mins	4hrs

The mean plasma concentration were shown to be higher after sublingual than after buccal administration<sup>5</sup>. Sublingual route seems to be atleast as effective as the oral route<sup>6</sup>.

**ACTIONS:**

The role of Prostaglandin in labour includes softening of the cervix, induction of gap junctions. Myometrial cell contractility is influenced by the prostaglandin. The mechanism of action involves the extracellular calcium. Gap junctions between the myometrium is responsible for the myometrial action in coordination. The sensitivity of myometrium to oxytocin and induction of gap junctions is caused by the prostaglandins.

Hyaluronic acid alters the composition and structure of cervix. Hyaluronic acid is produced by the fibroblasts under the influence of Prostaglandin and Interlukin-8.

Prostaglandin causes vasodilatation of cervical blood vessels, increased extravasation of neutrophils. Degranulation and release of collagenase and protease is caused by extravasated neutrophils. collagenase and protease will lead to the softening of cervix and degradation of collagen.

Randomized studies comparing oral misoprostol to vaginal and intracervical PGE2 showed that oral misoprostol had similar efficacy to PGE2, but vaginal misoprostol was not only superior to oral misoprostol but also to the conventional methods for ripening and induction of labour. However there are concerns about the hyperstimulation, meconium stained liquor and uterine rupture with misoprostol. The risk of adverse effects can be reduced by using lower doses of Misoprostol.

### **MISOPROSTOL:**

It is the synthetic-methyl ester of PGE1 additionally methylated at C-16- which was initially used as a gastric cytoprotective agent for prevention of peptic ulcer. It has OH group in 16<sup>th</sup> position methyl group with carbon 16.

Senior 1993-Misoprostol stimulates the pregnant uterus by acting selectively on EP-2/EP-3 receptors.

<b>ROUTE</b>	<b>ORAL</b>	<b>VAGINAL</b>
MEAN PEAK SERUM LEVEL	227pg/ml	165pg/ml
TIME TO PEAK	34 minutes	80 minutes

Zieman 1997-vaginally absorbed serum levels are more prolonged. WHO recommends the following doses for oral and vaginal Misoprostol:

**Oral-25ug 2hourly**

**Vaginal-25ug 6 hourly**

ACOG recommends one quarter of an unscored 100mcg tablet which is approximately 25 mcg should be considered as initial dose for ripening of cervix and induction of labour. The frequency of administration should not be more than every 3-6 hrs. In addition oxytocin should not be administered less than 4 hours after misoprostol dose<sup>45</sup>.

**Bioavailabilty:**

Oral misoprostol has faster rise to peak levels and rapid decline. Vaginal misoprostol leads to gradual rise and slow decline with greater bioavailability. Misoprostol 50ug every 6 hours to induce labour may be appropriate in some situations although higher doses are associated with an increased risk of complication including uterine tachysystole with FHR decelerations<sup>45</sup>.

Uterine contractility and fetal heart rate must be monitored through out the induction with oxytocics but with continous fetal heart rate monitoring atleast for first three hours after misoprostol application.

Oxytocin infusion when required should not be initiated before 3-4 hours from the last dose. The mean plasma concentration were shown to be higher after sublingual than after buccal administration.

**Advantages:**

- Misoprostol appears to be safe and beneficial for inducing labour in a woman with an unfavorable cervix<sup>45</sup>. Reduces the need for oxytocin induction and reduces the induction labour interval.
- Less adverse effects on cardiovascular and bronchial smooth muscles due to which it can be advantageous in Hypertensive and Bronchial Asthma patients.
- Less cost.



- Can be stored at room temperature. PGE2 is available as vaginal tablet, gel, insert, intracervical gel. Gel is stored in refrigerator at 2-8 degrees. vaginal Pessary and insert should be stored in freezer at -20 degrees. But Misoprostol can be stored at room temperature for a longer time.
- Long shelf life

### **Disadvantages:**

#### **MATERNAL:**

- Rupture uterus
- Uterine Tachysystole is defined as >6 contractions in a 10 minute period<sup>15</sup>.
- Uterine hypertonicity defined as single contraction lasting longer than 2 minutes<sup>15</sup>. Uterine Hyperstimulation is when either condition leads to non reassuring fetal heart rate pattern<sup>15</sup>. -Incidence of Hyperstimulation with or without FHR changes with different oxytocic agents varies from 1-5%<sup>14</sup>. The incidence of hyperstimulation with PGE2 and Misoprostol are the same<sup>16</sup>.
- GIT Effects-nausea, vomiting, diarrhoea, dyspepsia, flatulence
- Fever, chills and rigors Headache
- Prostaglandin E2 should be carefully used in patients with glaucoma, severe hepatic, renal impairment or Asthma

**FETAL:**

- Fetal distress-hypertonicity of uterus causes fetal heart rate deceleration
- Perinatal death
- Meconium aspiration syndrome
- No teratogenic or carcinogenic effects
- No serious effects on the cardiovascular physiology of the fetus
- No increased metabolites in the cord blood.

**INTRA PARTUM FETAL HEART RATE MONITORING:**

It is done by using the CTG Machine. NICE (2007) gives very clear guidance on the categorisation of FHR features and CTG traces. However in addition to the correct interpretation of CTG, the importance of adequate communication of the findings, timely clinical response for suspicious or pathological trace and the consideration of the clinical picture cannot be overemphasized.

A pathological CTG is considered to indicate a possible risk of hypoxia and it is indefensible and indeed unacceptable practice to take no action. Fetal hypoxia and acidosis may develop faster with an abnormal trace when there is scanty thick meconium, intrauterine growth restriction, intrauterine infection, Pre or post term labour.

**NORMAL CTG:** An FHR tracing with baseline variability of 110-160 beats per minute, variability more than or equal to 5, no decelerations, with accelerations.

**SUSPICIOUS CTG:** An FHR trace with one feature classified as non-reassuring and the remaining features classified as reassuring.

**PATHOLOGICAL CTG:** An FHR tracing with two or more features classified as non-reassuring or one or more classified as abnormal.

Categorisation of FHR features (NICE 2007)

FEATURE	BASELINE (BPM)	VARIABILITY	DECELERATIONS	ACCELERATION
<b>Reassuring</b>	110-160	>5	None	Present
<b>Non-reassuring</b>	100-109 161-180	<5 for 40 to 90 minutes	Typical variable decelerations with over 50 % contractions occurring over 90 minutes Single prolonged decelerations for upto 3 minutes	The absence of accelerations with otherwise normal trace is of uncertain significance
<b>Abnormal</b>	<100>180 Sinusoidal pattern >10 minutes	<5 for >90 mins	Either atypical variable decelerations with over 50% of contractions or late decelerations both for over 30 minutes Single prolonged deceleration for more than 3 minutes	The absence of accelerations with otherwise normal trace is of uncertain significance

## **ASSESSMENT OF LABOUR PROGRESS:**

Since 1954 when Emanuel Friedman first reported the graphic representation of progress of labour, the concept of a 'Partograph' has been used in the management of labour.

The normal labour curve developed by Friedman, based on observations, showed that the first stage of labour is divided into an acceleration phase, an active phase and a deceleration phase.

The progress of labour was presented graphically by plotting the rate of cervical dilatation against time. The resulting graph of cervical dilatation forms the basis of modern partograph a pictorial representation of the key events in labour presented chronologically on a single page. The maternal and fetal parameters recorded include cervical dilatation, the level of the presenting part, the fetal heart rate, the frequency and duration of uterine contractions and the colour and quantity of amniotic fluid. Other maternal parameters include temperature, pulse, blood pressure and drugs used. This pictorial documentation of labour facilitates the early recognition of poor progress. Plotting of cervical dilatation at regular intervals also enables prediction of the time of onset of second stage of labour. The role of partograph in the first stage labour has been established. To date, however, there have been no published randomized trials on the effectiveness of the partograph alone in changing the intrapartum outcomes. Thus, partographs should be used only as an aid to the management of labour.

### **AMNIOTIC FLUID VOLUME:**

The amniotic fluid volume gradually reduces with advancing gestation, most likely due to progressive placental dysfunction. Oligohydramnios increase the risk of cord compression during labour, resulting in higher risk of fetal heart rate abnormalities and fetal blood sampling. Higher rates of meconium staining of amniotic fluid due to increased bowel maturity lead to higher risk of meconium aspiration syndrome. Higher rates of induction of labour lead to higher rates of emergency cesarean section. Magann et al (2000) questioned the ability of an AFI to identify actual abnormal amniotic fluid volumes. They found no significant difference in the incidence of non-reactive non-stress test results, meconium stained amniotic fluid, cesarean delivery for fetal distress, low apgar scores and infants with cord pH of  $<7.10$ .

## **MATERIALS AND METHODS**

### **STUDY DESIGN: -**

Prospective randomized control study.

### **STUDY PERIOD: -**

January 2015-August 2015 (8 Months)

### **STUDY PLACE:-**

GMKMCH, Salem-1.

### **SAMPLE SIZE: -**

Determined by statistical analysis. Statistical analysis is to be done using analytical methods used in appropriate places. About 300 women are to be randomized to either oral Misoprostol or vaginal Misoprostol or foley bulb with oxytocin induction.

### **INCLUSION CRITERIA:**

- Gestational Age >41 weeks
- Singleton pregnancy
- Cephalic presentation
- Bishop's score < 6
- Completed 41 weeks of gestational age
- Live fetus showing no signs of fetal compromise on admission CTG.
- Adequate Liquor

**EXCLUSION CRITERIA:**

- Multiple pregnancy
- Non cephalic presentations
- Bishop's Score > 6
- H/o previous scar, Uterine Surgery
- Any medical Conditions complicating Pregnancy
- Hydramnios, IUGR, Gestational age < 41 weeks
- Women in active labour
- Ruptured membranes
- Cephalo pelvic disproportions
- Hypersensitivity to Prostaglandins
- Allergy or asthma
- Vaginal bleeding
- Previous cesarian section

**ORAL MISOPROSTOL:**

- Informed consent obtained for Misoprostol group of patients.
- WHO RECOMMENDATION: 25 µg of Misoprostol given orally, 4-hourly
- Dose is repeated at the interval of 4hrs to the maximum of 3 doses.
- Pelvic examination done every 4 hrs.

### **VAGINAL MISOPROSTOL:**

- Informed consent obtained for Vaginal Misoprostol group of patients.
- WHO RECOMMENDATION: 25 µg of Misoprostol is kept vaginally, 4<sup>th</sup> -hourly
- Dose is repeated at the interval of 4hrs to the maximum of 3 doses.
- Pelvic examination done every 4 hrs.

### **FOLEY CATHETER:**

- Informed consent
- 16 French Foley catheter inserted intracervically & bulb inflated with 80 ml of normal saline
- Pelvic assessment done after 12hrs if the inflated balloon is not passed spontaneously
- If cervical dilation is equal to or >2 cm, ARM should be done & induction with oxytocin should be done
- Method of insertion: 16 Fr Foley catheter is used. Its insertion is done under strict aseptic precaution. Antibiotic-Inj. Ampicillin 1g i. v BD is administered after a test dose. using speculum, and holding the anterior lip of cervix with sponge holder, foley catheter is inserted into the cervix and then advanced further. 80ml of Normal saline is instilled into the bulb. The catheter is then pulled back to place the bulb at the level of the internal os. Catheter is given traction and is fixed over the medial side of the patient's thigh.



Informed consent was taken from every patient explaining the method of induction. Detailed history of the patient is taken including her menstrual history, obstetric history, relevant past history, medical and surgical history, history of drug allergy. General examination is done for the patient. Parameters noted are Pallor, Pedal edema, temperature, pulse rate, blood pressure, cardiovascular and respiratory system.

Ultrasound is done for gestational age, lie, liquor. early scans of the patient is verified to confirm the gestational age.

Bishop scoring is done by looking for the cervical dilatation, effacement, position, consistency and station of the fetal head.

Pelvic examination done and major degrees of CPD are ruled out.

CTG is done –patients with non-reactive CTG are excluded.

- Duration of labour and mode of delivery should be noted
- Caesarean section should be resorted to whenever fetal distress arises or for failed induction or for failure to progress with minor degrees of cephalo pelvic disproportion.
- Babies should be followed up in neonatal unit, whenever they got admitted.
- Mother and baby should be discharged in good condition and followed up to six weeks.

**Monitoring:**

During induction following parameters are monitored.

- Maternal pulse rate, temperature, blood pressure, and urine output.
- Uterine contractions for their frequency, duration and strength every 15 mins
- Fetal heart rate every 15 mins.
- The fetal heart rate and uterine activity should be monitored continuously for a period of 30 minutes to 2 hours<sup>45</sup>.
- For all patients progress of labour will be monitored with partograph.
- Maternal and Fetal outcomes are noted.

**Outcomes Monitored:**

1. Induction Delivery interval
2. Maternal complications
3. Neonatal outcome
4. Cost effectiveness

## FOLEY INDUCTION



## **FOLEY CATHETER**



## **SIMS SPECULUM**



## SPONGE HOLDER



## CTG MACHINE



## OXYTOCIN INJECTION



## MISOPROSTOL TABLET



# PARTOGRAPH

## PARTOGRAPH

Name	Gravida	Para	Hospital no.
Date of admission	Time of admission	Ruptured membranes	hours

Fetal Heart Rate

Liquor Moulding

Contraction (mm) (Plot "x")

Descent of Head (Plot "o")

Hours

Time

## RESULTS AND ANALYSIS

### AGE:

**TABLE-1**

Age	N	Mean	SD	ANOVA	p
Foley	100	23. 90	2. 95	5. 02	0. 007**
Oral	100	23. 23	2. 54		
Vaginal	100	24. 48	2. 87		
Total	300	23. 87	2. 83		

This table shows the mean age in each study group.

The mean age in Foley group was 23. 90.

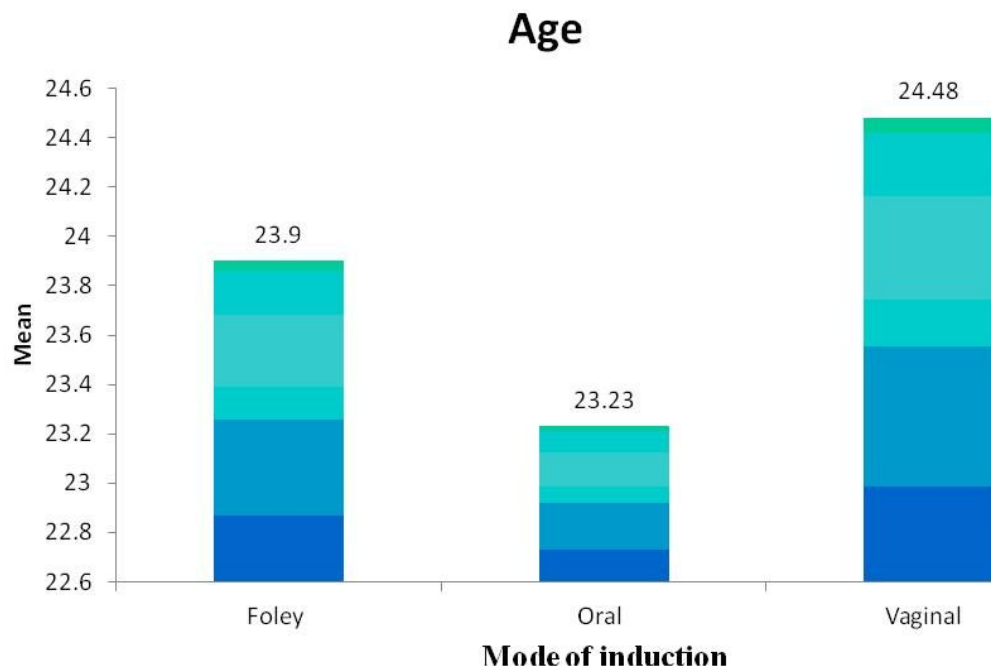
In Oral misoprostol group the mean age was 23. 23 and in Vaginal Misoprostol it was 24. 48

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be significant(P=0. 007)



**AGE:**

**Fig-1**



The figure above shows the mean age in each study group.

The mean age in Foley group was 23. 90.

In Oral misoprostol group the mean age was 23. 23 and in Vaginal Misoprostol it was 24. 48

**PARITY:**

**TABLE 2**

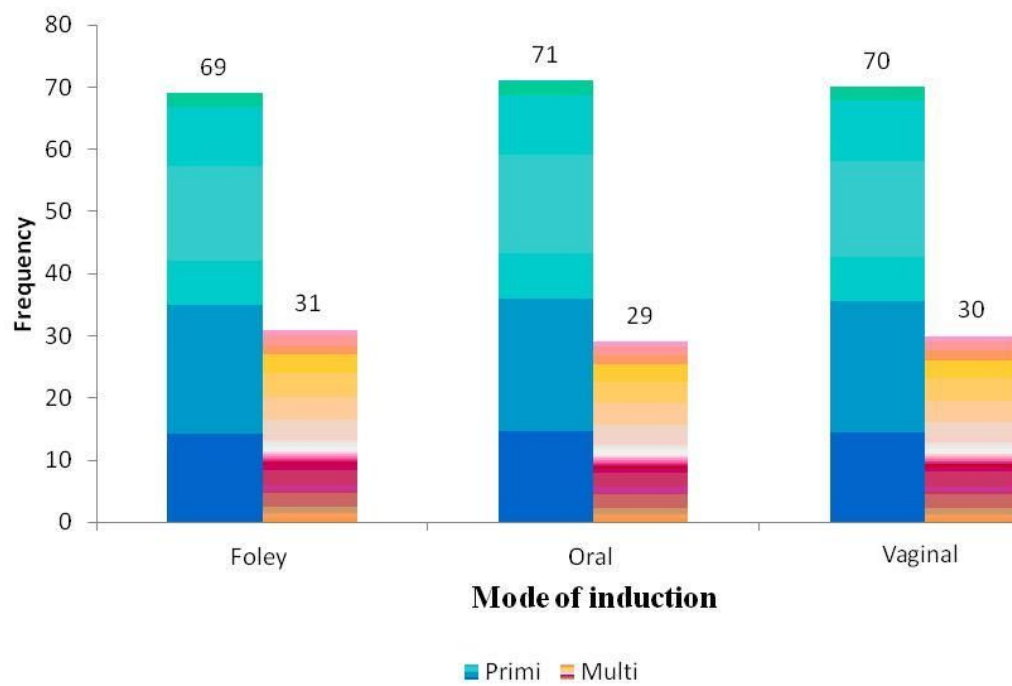
<b>Parity</b>	<b>Mode of induction</b>			<b>Total</b>		<b>Chi</b>	<b>P</b>
	<b>Foley</b>	<b>Oral</b>	<b>Vaginal</b>	<b>N</b>	<b>%</b>	<b>square</b>	
<b>Primi</b>	69	71	70	210	70	0. 095	0. 953
<b>Multi</b>	31	29	30	90	30		
<b>Total</b>	27	16	22	65	100		

This table shows the distribution of parity between Foley catheter, vaginal and oral Misoprostol.

Maximum number of patients were Primi gravida. 69% were Primi in Foley group & 31% were Multigravida. 71% were Primi gravida in, 29% were Multigravida in Oral Misoprostol Group, 70% Primi gravida, 30% Multi gravida in vaginal Misoprostol group. There was no significant difference in Parity distribution among the three groups. In all the three groups most of the patients were Primi gravida.

## PARITY:

**Fig 2**



This table shows the distribution of parity between Foley catheter, vaginal and oral Misoprostol.

## BISHOP SCORE:

TABLE-3

		N	Mean	SD	ANOVA	p
Bishop score at 0 hrs	Foley	100	2.46	0.64	0.95	0.389
	Oral	100	2.59	0.75		
	Vaginal	100	2.57	0.76		
	Total	300	2.54	0.72		
Bishop score at 4 hrs	Foley	100	5.08	1.16	96.22	< 0.001**
	Oral	90	8.53	2.22		
	Vaginal	90	8.37	2.32		
	Total	280	7.25	2.53		
Bishop score at 8 hrs	Foley	81	9.38	3.23	0.53	0.590
	Oral	13	10.15	3.60		
	Vaginal	13	10.15	3.60		

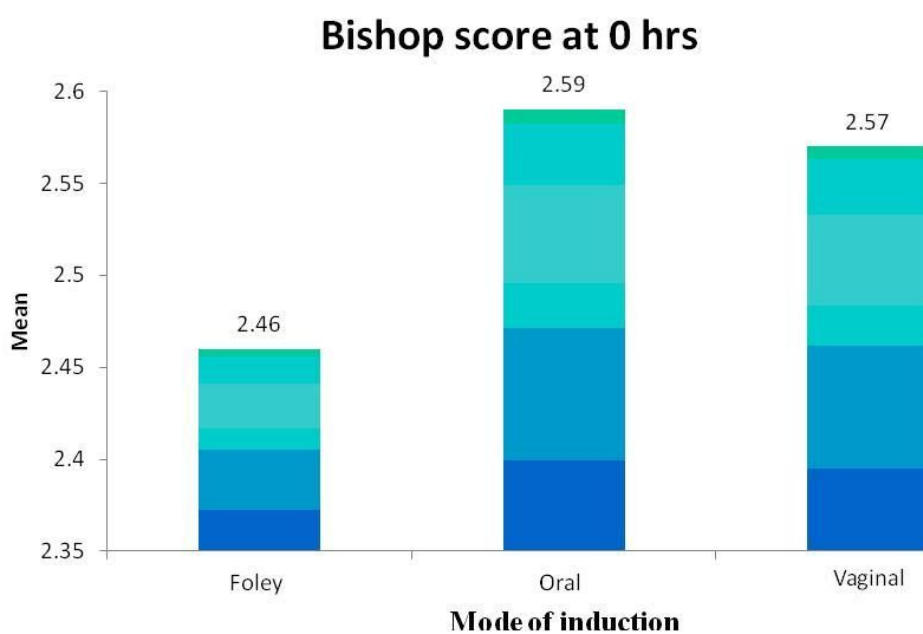
This table shows the Bishop score at '0' hour, 4 hour and 8 hour.

Bishop score at '0' hour was similar in all the three groups. In Foley group the Bishop score at '0' hour was 2.46, in Oral Misoprostol group the Bishop score at '0' hour was 2.59, in vaginal Misoprostol group the Bishop score at '0' hour was 2.57.

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was not found to be significant(P=0.389).

## BISHOP SCORE AT 0 HOUR

**Fig: 3**



The Figure 3 shows the Bishop score at '0' hour. Bishop score at '0' hour was similar in all the three groups. In Foley group the Bishop score at '0' hour was 2.46, in Oral Misoprostol group the Bishop score at '0' hour was 2.59, in vaginal Misoprostol group the Bishop score at '0' hour was 2.57.

### **BISHOP SCORE AT 4 HOURS:**

**TABLE -4**

<b>Mode of Induction</b>	<b>Bishop score at 4 hrs</b>
<b>Foley</b>	5.08
<b>Oral</b>	8.53
<b>Vaginal</b>	8.37

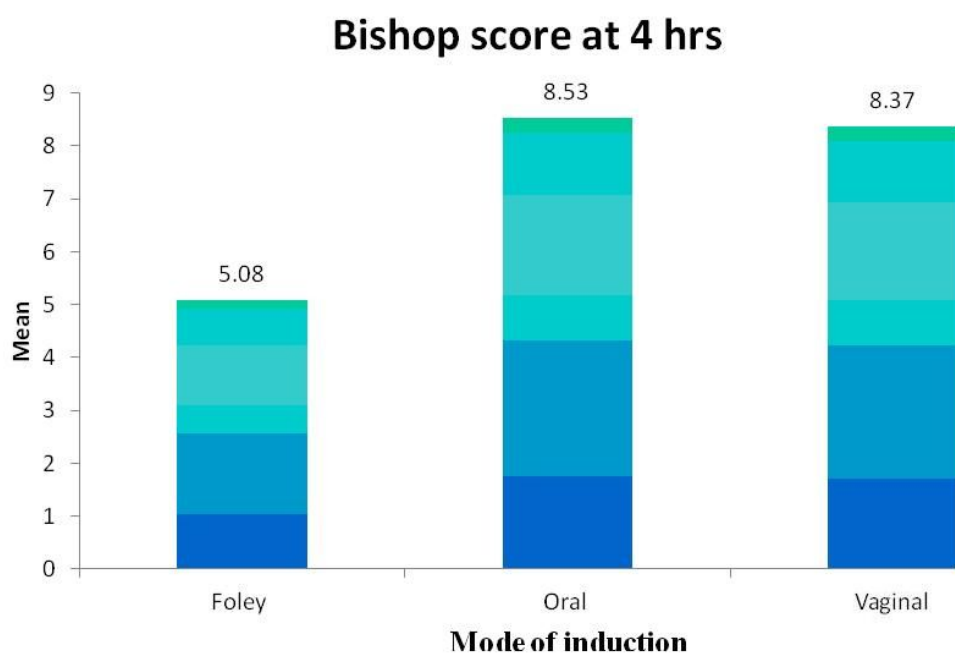
This table shows the Bishop score at '4' hour.

The Bishop score at '4' hours in Foley group was 5.08, in oral Misoprostol group the Bishop score at '4' hour was 8.53, in vaginal Misoprostol group the Bishop score at '4' hours was 8.37.

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P < 0.001$ ).

### BISHOP SCORE AT 4 HOURS:

Fig -4



The figure 4 shows the Bishop score at '4' hour. The Bishop score at '4' hours in Foley group was 5.08, in oral Misoprostol group the Bishop score at '4' hour was 8.53, in vaginal Misoprostol group the Bishop score at '4' hours was 8.37.

### **BISHOP SCORE AT 8 HOURS:**

**TABLE-5**

<b>Mode of Induction</b>	<b>Bishop score at 8 hrs</b>
<b>Foley</b>	9. 38
<b>Oral</b>	10. 15
<b>Vaginal</b>	10. 15

This table shows the Bishop score at '8' hour.

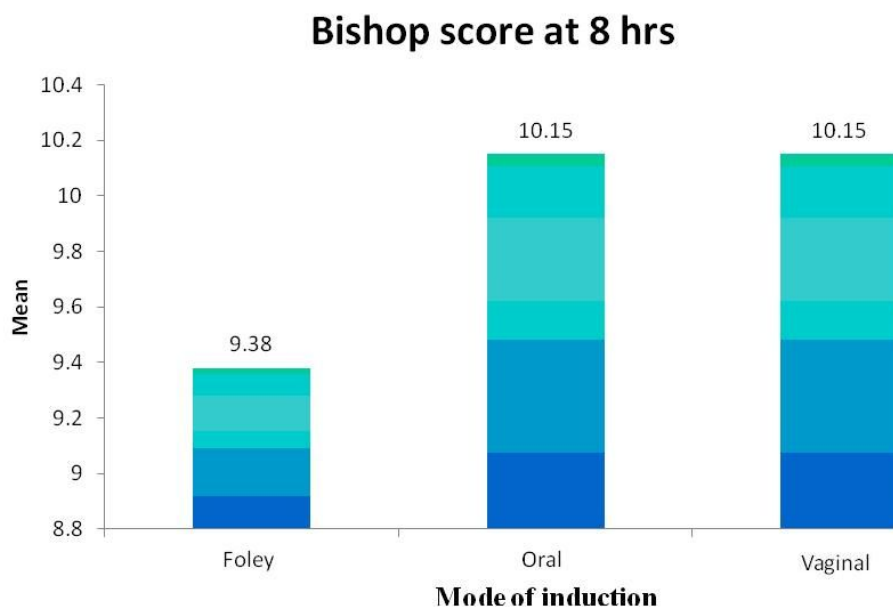
In foley group the Bishop score at '8' hours was 9. 38, in Oral Misoprostol group the Bishop score at '8' hours was 10. 15, in vaginal Misoprostol group the Bishop score at '8' hours was 10. 15.

The difference between the Bishop scores at '8' hours was not statistically significant.



## BISHOP SCORE AT 8 HOURS:

**Fig-5**



This figure shows the Bishop score at '8' hour. In foley group the Bishop score at '8' hours was 9.38, in Oral Misoprostol group the Bishop score at '8' hours was 10.15, in vaginal Misoprostol group the Bishop score at '8' hours was 10.15.

## INDUCTION DELIVERY INTERVAL:

**TABLE -6**

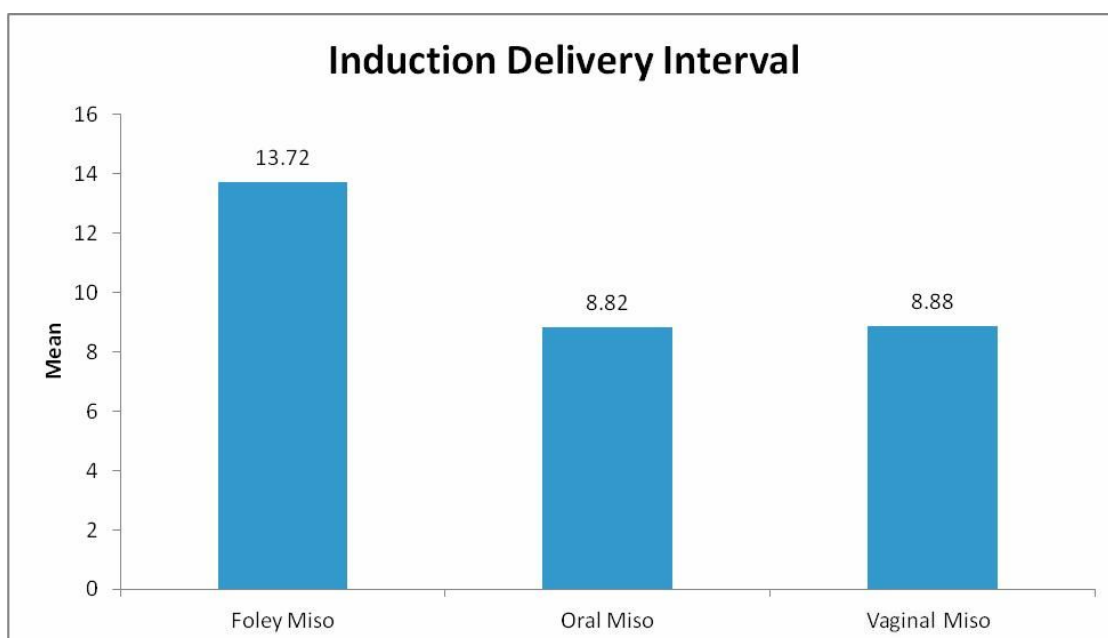
Mode of Inductin		N	Induction Delivery Interval Mean	SD	ANOVA	p
<b>Induction</b>	<b>Foley</b>	100	13. 72	1. 90	130. 18	< 0. 001**
	<b>Oral Miso</b>	100	8. 82	2. 72		
	<b>Vaginal Miso</b>	100	8. 88	2. 69		
	<b>Total</b>	300	10. 47	3. 36		

The induction delivery interval was shorter in oral Misoprostol group which was 8. 82 hours. Though the induction delivery interval in vaginal Misoprostol group was comparable to oral Misoprostol group it was slightly longer-8. 88 hours. Longest induction delivery interval was in the foley group - 13.72 hours.

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P < 0.001$ )

## INDUCTION DELIVERY INTERVAL:

Fig -6



The figure above shows the induction delivery interval in oral Misoprostol group was 8.82 hours, vaginal Misoprostol group 8.88 hours, foley group -13.72 hours.

**MODE OF DELIVERY:****TABLE -7**

Mode of delivery	Mode of induction			Total		Chi	p
	Foley	Oral	Vaginal	N	%	Square	
Labour Natural	73	84	78	235	78	14.54	0.024*
Lower segment cesarean section	24	7	13	44	15		
Outlet Forceps	3	8	8	19	6		
Vacuum		1	1	2	1		
Total	27	16	22	65	100		

**LABOUR NATURAL:**

Mode of delivery was compared in three groups –Labour natural was 73% in Foley group, 84% in oral misoprostol group, 78% in Vaginal Misoprostol group.

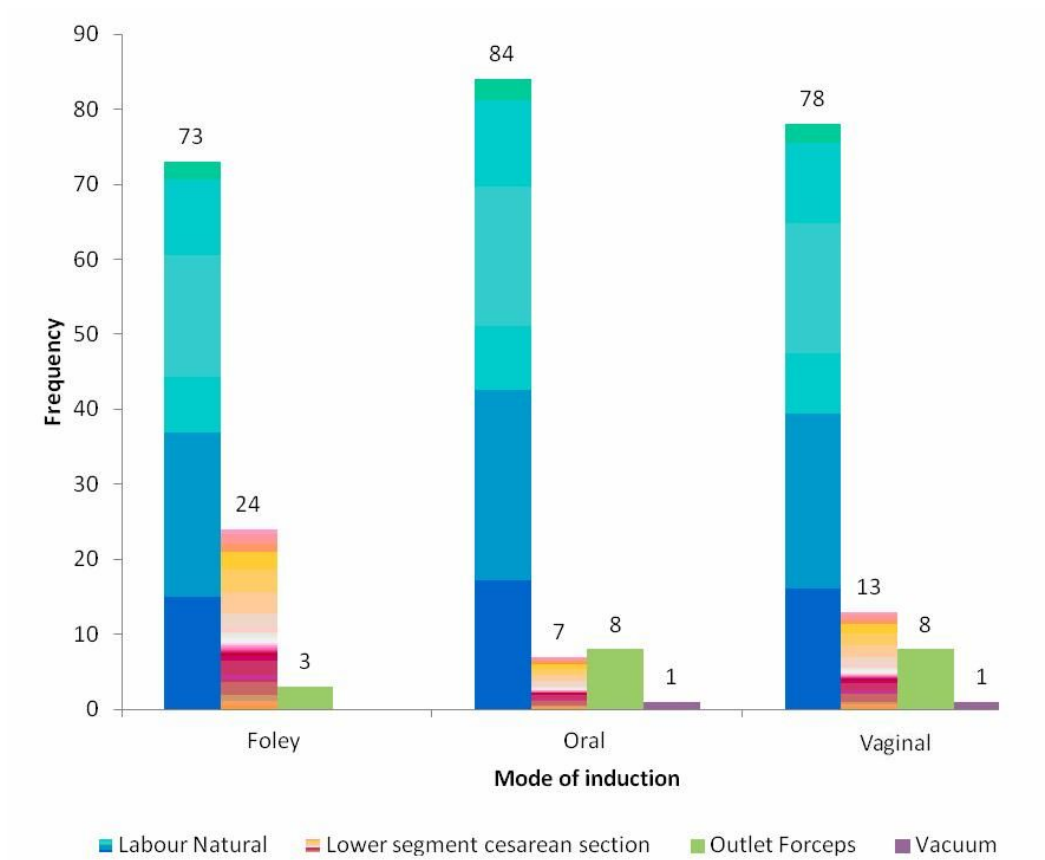
**LSCS:**

Comparison of LSCS rate in three groups-maximum number was recorded in the Foley group -24%, followed by vaginal Misoprostol -13%, and 7% in oral misoprostol group.

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P=0.024$ ).

## MODE OF DELIVERY

**Figure: 7**



The above figure compares the Mode of delivery in three groups –Labour natural was 73% in Foley group, 84% in oral misoprostol group, 78% in Vaginal Misoprostol group.

**INSTRUMENTAL DELIVERY:**

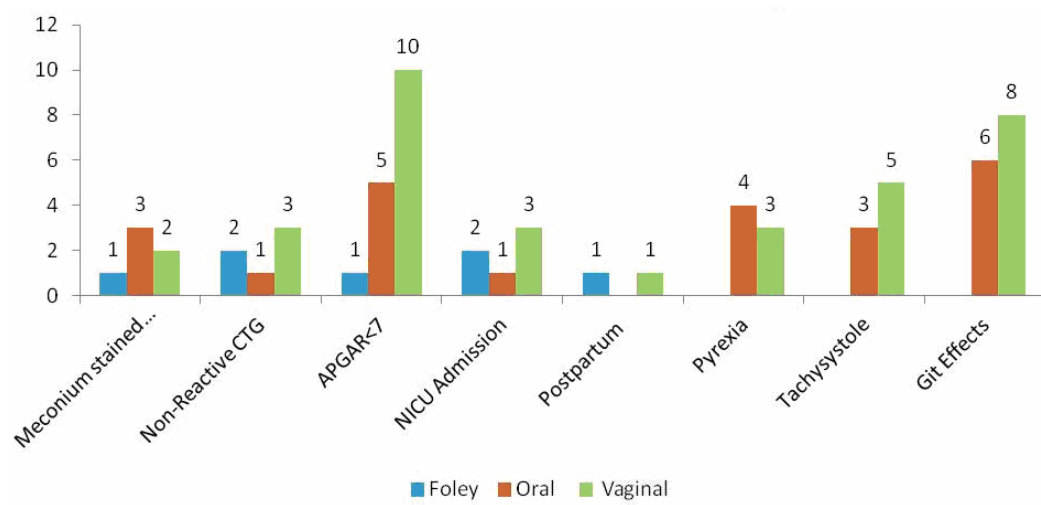
In Foley group 3% had Forceps delivery which was 8% in oral Misoprostol group and 8% in vaginal Misoprostol group. There was no vacuum delivery in Foley group and 1% in oral misoprostol group and 1% in vaginal Misoprostol group.

**TABLE-8**

		Mode of induction			Chi Square	p
		Foley	Oral	Vaginal		
Meconium stained Amniotic Fluid	No	99	97	98	1. 02	0. 600
	Yes	1	3	2		
Non-Reactive CTG	No	98	99	97	1. 02	0. 600
	Yes	2	1	3		
APGAR<7	No	99	95	90	8. 05	0. 018*
	Yes	1	5	10		
NICU Admission	No	98	99	97	1. 02	0. 600
	Yes	2	1	3		
Postpartum Hemorrhage	No	99	100	99	1. 01	0. 604
	Yes	1		1		
Pyrexia	No	100	96	97	3. 80	0. 149
	Yes		4	3		
Tachysystole	No	100	97	95	4. 88	0. 087
	Yes		3	5		
GIT Effects	No	100	94	92	7. 79	0. 020*
	Yes		6	8		
Oxytocin usage	No	42	100	100	143. 80	< 0. 001**
	Yes	58				

## Maternal and Fetal Outcome

Figure-8



**MECONIUM STAINED AMNIOTIC FLUID –INCIDENCE:**

The incidence of meconium stained amniotic fluid was 1% in Foley group, 3% in oral misoprostol group, 2% in Vaginal Misoprostol group. Total of 6% was meconium stained.

**NR CTG INCIDENCE:**

Incidence of NR CTG was 2% in Foley Group, 1% in Oral Misoprostol and 3% in Vaginal Misoprostol group.

**NICU ADMISSION:**

The rate of NICU admission was 2% in Foley group, 1% in Oral misoprostol group, 3% in vaginal Misoprostol.

**INCIDENCE OF APGAR<7:**

The incidence of APGAR< 7 was 1% in Foley group, 5% in Oral misoprostol group, 10% in vaginal Misoprostol group.

**TACHYSYSTOLE:**

There was no tachysystole in Foley group. The rate of tachysystole was 3% in Oral Misoprostol group and 5% in vaginal Misoprostol group.



**POSTPARTUM HAEMORRHAGE:**

There was 1 case of Postpartum Haemorrhage in Foley group, and 1 case in Vaginal Misoprostol group.

**GIT EFFECTS:**

There were 6 cases in oral Misoprostol group and 8 cases in vaginal Misoprostol.

### COMPARISION OF COST:

TABLE- 9

Cost Rs	N	Mean	SD	ANOVA	P
Foley	100	65. 00	0. 00	26001. 20	< 0. 001**
Oral	100	10. 15	2. 41		
Vaginal	100	10. 15	2. 41		
Total	300	28. 43	25. 97		

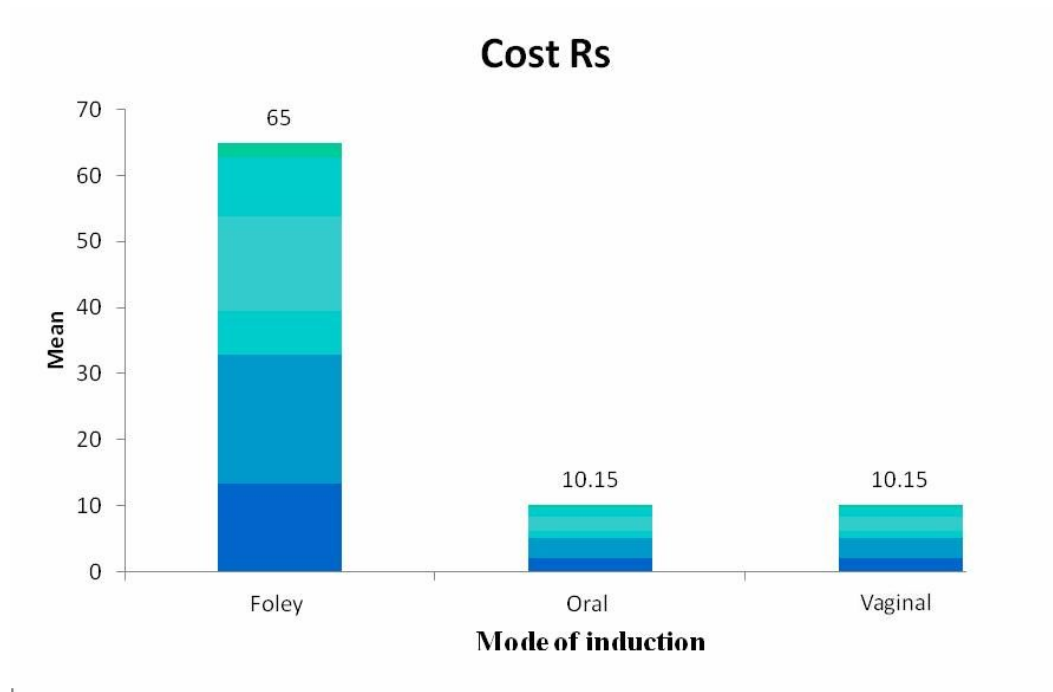
The foley induction was costlier than the other two modes of induction.

The mean cost of oral Misoprostol and vaginal Misoprostol was similar.

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P < 0.001$ )

## COMPARISION OF COST:

Fig- 9



The Figure 9 shows that the cost of Foley Induction was Rs.65, Oral Misoprostol was Rs.10.15, Vaginal Misoprostol was Rs.10.15.

**NUMBER OF DOSES REQUIRED IN ORAL AND VAGINAL  
MISOPROSTOL GROUP:**

**TABLE-10**

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Oral Miso	100	2. 03	0. 48
Vaginal Miso	100	2. 05	0. 46

The mean number of doses required for oral Misoprostol was 2. 03 and for vaginal Misoprostol was 2. 05.

**TABLE -11**

<b>Doses</b>	<b>Number of Patients Oral Miso</b>	<b>Number of Patients Vaginal Miso</b>
One	10	8
Two	77	79
Three	13	13
Total	100	100

10 patients in oral misoprostol group and 8 patients in vaginal misoprostol group required single dose. 77 patients in oral Misoprostol group and 79 patients in vaginal misoprostol group required 2 doses of 25 ug Misoprostol. 13 patients in both oral and vaginal Misoprostol group required 3 doses.

**MEAN INDUCTION DELIVERY INTERVAL:**

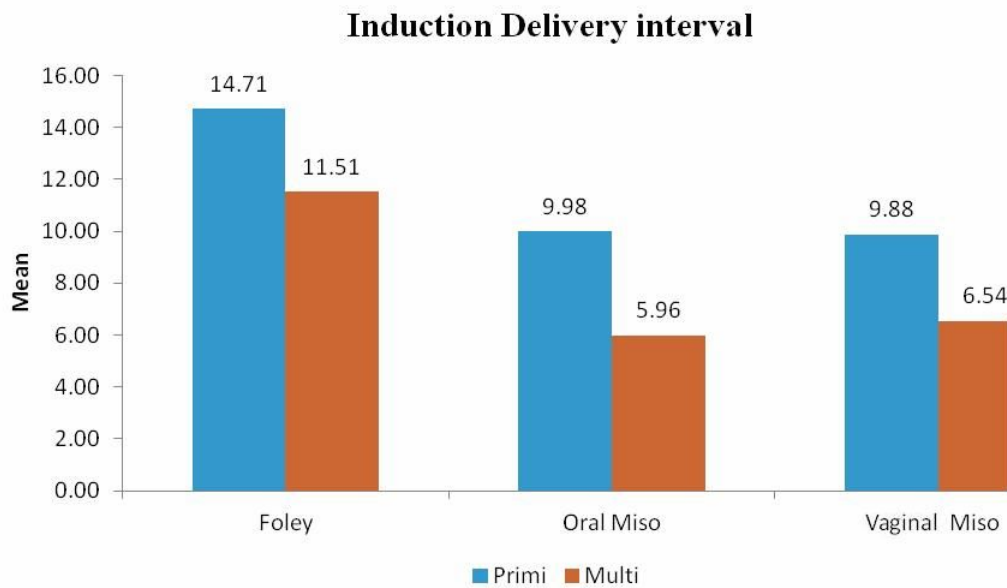
**TABLE -12**

<b>Induction Delivery interval</b>		<b>Mean</b>	<b>SD</b>
Foley	Primi	14. 71	1. 31
	Multi	11. 51	0. 84

<b>Induction Delivery interval</b>		<b>Mean</b>	<b>SD</b>
Oral Miso	Primi	9. 98	2. 35
	Multi	5. 96	0. 73

<b>Induction Delivery interval</b>		<b>Mean</b>	<b>SD</b>
Vaginal Miso	Primi	9. 88	2. 51
	Multi	6. 54	1. 27

The mean induction delivery interval in Foley group was 14. 71hrs in Primi and 11. 51 hrs in Multigravida. In oral Misoprostol group it was 9. 98hrs in Primi and 5. 96 hrs in multigravida. In vaginal Misoprostol group it was 9. 88 hours in Primi and 6. 54 hrs in multigravida.



The figure above shows the mean induction delivery interval in Foley group was 14. 71hrs in Primi and 11. 51 hrs in Multigravida. In oral Misoprostol group it was 9. 98hrs in Primi and 5. 96 hrs in multigravida. In vaginal Misoprostol group it was 9. 88 hours in Primi and 6. 54 hrs in multigravida.

## **DISCUSSION**

This study was conducted at Govt. Mohan Kumaramangalam Medical College hospital as a **COMPARITIVE STUDY BETWEEN EFFICACY OF ORAL MISOPROSTOL & VAGINAL MISOPROSTOL & FOLEY BULB WITH OXYTOCIN INDUCTION IN PROLONGED PREGNANCY & STUDY OF MATERNAL & FETAL OUTCOME.**

**The study was conducted for a period of 8 months from January 2015 to august 2015.**

### **RANDOMISATION:**

300 women were randomized to either oral Misoprostol or vaginal Misoprostol or foley bulb with oxytocin induction. Each group contained 100 patients.

### **INDICATION:**

In this study patients with prolonged pregnancy were induced with any one of the three methods randomly. Prolonged pregnancy being the commonest indication for induction of labour in any study. Murthy Bhaskar Krishnamurthy et al(2006) and J. Ferdous et al concluded that the commonest indication for induction of labour was post dated pregnancy.

**AGE:**

The mean age in Foley group was 23.90. In Oral misoprostol group the mean age was 23.23 and in Vaginal Misoprostol it was 24.48. The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be significant ( $P=0.007$ ). This correlates well with the study conducted by Tejaswini. B. Hiremath where the mean age in oral Misoprostol group was 23.28 and in Vaginal Misoprostol Group was 23.82.

**PARITY:**

Maximum number of patients were Primi gravida. 69% was Primi in Foley group & 31% were Multigravida. 71% were Primi gravid and 29% were Multigravida in Oral Misoprostol Group, 70% Primi gravida, 30% Multi gravida in vaginal Misoprostol group.

There was no significant difference between the 3 groups with regard to the Parity ( $P=0.953$ ) This correlates with the study conducted by Tabowei et al (2003) and Murthy Bhaskar Krishnamurthy et al (2006).

**BISHOP SCORE AT 0 HOUR:**

Bishop score at '0' hour was similar in all the three groups. In Foley group the Bishop score at '0' hour was 2.46, in Oral Misoprostol group the Bishop score at '0' hour was 2.59, in vaginal Misoprostol group the Bishop score at '0' hour was 2.57.



The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was not found to be significant( $P=0.389$ ).

#### **BISHOP SCORE AT 4 HOURS:**

The Bishop score at '4' hours in Foley group was 5.08, in oral Misoprostol group the Bishop score at '4' hours was 8.53, in vaginal Misoprostol group the Bishop score at '4' hours was 8.37.

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P<0.001$ ).

#### **BISHOP SCORE AT 8 HOURS:**

In foley group the Bishop score at '8' hours was 9.38, in Oral Misoprostol group the Bishop score at '8' hours was 10.15, in vaginal Misoprostol group the Bishop score at '8' hours was 10.15.

#### **INDUCTION DELIVERY INTERVAL:**

The induction delivery interval was shorter in oral Misoprostol group which was 8.82 hours. Though the induction delivery interval in vaginal Misoprostol group was comparable to oral Misoprostol group, it was slightly longer-8.88 hours. Longest induction delivery interval was in the foley group - 13.72 hours.

Sl.No	Study Conducted by	Year	Vaginal Msoprostol	Oral Misoprostol
1	Hall R et al <sup>12</sup>	2002	9. 38	10. 74
2	Rasheed R et al <sup>13</sup>	2007	13. 5	20. 6
3	Staphnie A et al <sup>4</sup>	2000	14. 3	23. 1
4	Varsha Laxmikant Deshmukh et al <sup>7</sup>	2013	14. 3	23. 1
5	Asha Latha shetty et al <sup>9</sup>	2001	17. 8	27. 9
6	Kadija bano et al <sup>37</sup>	2005	9. 09	9. 81
7.	Tejaswini. B. Hiremath <sup>32</sup>	2014	12. 92	11. 86
8	Kamath Rajalaxmi K et al	2014	12. 5	13. 06
9	Nirmala Hanji et al	2014	11. 86	12. 92
10.	Present study	2015	8. 88	8. 82

The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P < 0.001$ ).

This correlates with the study conducted by Tejaswini. B. Hiremath et al<sup>32</sup> where the induction delivery interval was shorter in Oral Misoprostol group-11.86 hours, compared to the vaginal Misoprostol group-12.92 hours. The mean Induction delivery interval correlates with the study conducted by Khadija et al<sup>37</sup> where it was 9.45 hours.

## INDUCTION DELIVERY INTERVAL IN FOLEY GROUP

S. NO	STUDY CONDUCTED BY	YEAR	HOURS
1.	James et al	1994	7. 3
2.	Jindal Promila et al <sup>19</sup>	2007	19. 45
3.	Fatemeh vahid Roudsari et al	2011	13. 6
4.	Sherman et al	1996	12. 8
5.	Connors et al	1995	17. 7
6.	Tuuli MG et al <sup>24</sup>	2013	12hrs
7.	Present study	2015	13. 72

My study correlates well with the study by Fatemeh vahid Roudsari et al, Sherman et al, Tuuli MG et al.

Comparing all the above studies Misoprostol has got shorter Induction delivery interval when compared to Foley catheter which correlates with present study. It is also evident in the present study that the Induction Delivery interval is shorter in Oral Misoprostol group.

### MODE OF DELIVERY:

#### LABOUR NATURAL:

Mode of delivery was compared in three groups –Labour natural was 73% in Foley group, 84% in oral misoprostol group, 78% in Vaginal Misoprostol group. This correlates with the study conducted by Tejaswini. B. Hiremath<sup>32</sup> where the Oral Misoprostol group had 92% labour natural, vaginal Misoprostol group had 88% labour natural. In a study done by Promila et al the rate of labour natural was 98% in Misoprostol group and 78% in Foley group.

Hence oral Misoprostol group had maximum number of Labour natural.

LSCS:

Comparison of LSCS rate in three groups-maximum number was recorded in the Foley group -24%, followed by vaginal Misoprostol- 13%, and 7% in oral misoprostol group. The result was analysed statistically by using ANOVA test and the difference of the means of these three groups was found to be statistically significant( $P=0.024$ ).

#### **LSCS RATE IN FOLEY GROUP**

STUDY CONDUCTED BY	YEAR	LSCS RATE
Jan willaiam de Leeuw et al	2001	20%
Vahid Rousari et al	2011	37.3%
Sciscione et al	2001	31.8%
Present study	2015	24%

Lscs rate in Foley group-24% in the present study correlates well with the study conducted by Jan william de Leeuw et al-20%.

#### **LSCS RATE IN MISOPROSTOL GROUP:**

STUDY CONDUCTED BY	YEAR	ORAL MISO	VAGINAL MISO
Hall R et al <sup>12</sup>	2002	15%	17%
Kamath rajalaxmi et al <sup>17</sup>	2014	12%	20%
Tejaswini. B. Hiremath et al <sup>32</sup>	2014	4%	12%
Present study	2015	7%	13%

The LSCS rate in Oral and vaginal Misoprostol group in the present study- 7% in oral and 13% in vaginal group correlates well with the study conducted by Tejaswini. B. Hiremath et al<sup>32</sup>-4% in oral and 12% in vaginal group. In all the above mentioned study and the present study the LSCS rate is more in Vaginal Misoprostol group when compared to Oral group. Comparing all the three modes of induction oral Misoprostol had the least LSCS rate.

#### **INSTRUMENTAL DELIVERY:**

In Foley group 3% had Forceps delivery which was 8% in oral Misoprostol group and 8% in vaginal Misoprostol group. There was no vacuum delivery in Foley group and 1% in oral misoprostol group and 1% in vaginal Misoprostol group. In the study conducted by Katrein oude Rengerink et al<sup>27</sup> the rate of instrumental delivery was less in Foley group-10%, more in Misoprostol group-14% which correlates with the present study. In a study by Adeniji et al<sup>25</sup>, Ashalatha Shetty et al<sup>9</sup> the rate of Instrumental delivery were similar in oral and vaginal Misoprostol group which correlates well with the present study.

<b>STUDY CONDUCTED BY</b>	<b>YEAR</b>	<b>FOLEY</b>	<b>MISOPROSTOL</b>
<b>Katrein Oude Rengerink et al</b>	2001	10%	14%
<b>Present study</b>	2015	3%	9%

### **INDICATION FOR INSTRUMENTAL DELIVERY:**

Failed induction-22% is the major indication for operative delivery in Foley group. Failed maternal efforts-9% is the major indication for operative delivery in oral misoprostol group, whereas it was Fetal distress-10% in Vaginal Misoprostol group. In a study conducted by Asha Latha Shetty et al<sup>9</sup> operative delivery for Fetal distress was more in Vaginal misoprostol group which correlates with the present study.

### **MECONIUM STAINED AMNIOTIC FLUID –INCIDENCE:**

The incidence of meconium stained amniotic fluid was 1% in Foley group, 3% in oral misoprostol group, 2% in Vaginal Misoprostol group. Total of 6% was meconium stained in the present study. In the study conducted by Adeniji et al<sup>25</sup> Meconium stained amniotic fluid was 2% in foley group and 5% in misoprostol group which correlates with the present study.

The occurrence of Meconium stained amniotic fluid was more in Oral Misoprostol group.

### **NR CTG INCIDENCE:**

Incidence of NR CTG was 2% in Foley Group, 1% in Oral Misoprostol and 3% in Vaginal Misoprostol group. In a study conducted by Olimpio B. Moraes Filho<sup>28</sup> the incidence of NR CTG was 3. 3% in Foley group and 4. 2% in Vaginal Misoprostol group which correlates with the present Study.

The occurrence of NR CTG is more in Vaginal misoprostol group.

**NICU ADMISSION:**

The rate of NICU admission was 2% in Foley group, 1% in Oral misoprostol group, 3% in vaginal Misoprostol. In a study conducted by Tejaswini. B. Hiremath et al<sup>32</sup> the rate of NICU ADMISSION was more in vaginal Misoprostol group-10% and 8% in oral Misoprostol group which correlates with the present study. In a study conducted by C. David et al the rate of NICU admission was 6% in oral Misoprostol and 8% in vaginal Misoprostol. The rate of NICU admission was maximum in Vaginal Misoprostol group.

**INCIDENCE OF APGAR<7:**

The incidence of APGAR< 7 was 1% in Foley group, 5% in Oral misoprostol group, 10% in vaginal Misoprostol group.

**TACHYSYSTOLE:**

There was no tachysystole in Foley group. The rate of tachysystole was 3% in Oral Misoprostol group and 5% in vaginal Misoprostol group.

<b>STUDY CONDUCTED BY</b>	<b>YEAR</b>	<b>ORAL MISOPROSTOL</b>	<b>VAGINAL MISOPROSTOL</b>
<b>Rasheed R et al<sup>13</sup></b>	2007	1. 8%	8. 3%
<b>Stephiene A et al<sup>4</sup></b>	2001	9. 7%	26. 5%
<b>Asha Latha Shetty et al<sup>9</sup></b>	2001	0. 8%	4. 9%
<b>C. David et al</b>	2008	1. 8%	5. 4%
<b>Present Study</b>	2015	3%	5%

In all above mentioned studies vaginal Misoprostol causes more Tachysystole than the Oral Misoprostol group. The present study correlates well with the results of the study conducted by C. David et al.

#### **POSTPARTUM HAEMORRHAGE:**

There was 1 case of Postpartum Haemorrhage in Foley group, and 1 case in Vaginal Misoprostol group which was managed medically. There was no Post partum Haemorrhage in Oral Misoprostol group.

#### **GIT EFFECTS:**

There were 6 cases in oral Misoprostol group and 8 cases in vaginal Misoprostol group. In a study conducted by Tejaswini. B. Hiremath the rate of GIT effects in Oral Misoprostol group was 6% and 8% in vaginal Misoprostol which correlates well with the present study.

#### **PYREXIA:**

There were 4 cases of Pyrexia in Oral Misoprostol group and 3 cases in vaginal Misoprostol group. In a study conducted by Tejaswini. B. Hiremath the rate of Pyrexia in Oral Misoprostol group was 4% and 4% in vaginal Misoprostol which correlates well with the present study.



## SUMMARY

1. The maximum age group in the study was between 20-25.
2. There was significant difference in age among the three groups.
3. Maximum number of patients were Primi.
4. The Bishop score was similar in all three groups before induction of labour.
5. The improvement in Bishop score was similar in Oral and Vaginal Misoprostol and was lesser in Foley group.
6. Induction to delivery interval was shortest in oral Misoprostol group followed by vaginal Misoprostol. Foley group had the longest induction delivery interval.
7. The maximum mode of delivery was Labour Natural. Labour natural was maximum in oral Misoprostol group followed by vaginal Misoprostol. Labour Natural was least in Foley group.
8. LSCS was maximum in the Foley group -24%, followed by vaginal Misoprostol 13%, and was least -7% in oral misoprostol group.
9. The instrumental delivery was maximum and similar in oral and vaginal Misoprostol group and was least in Foley group.
10. The incidence of Meconium stained amniotic fluid was maximum in Oral Misoprostol followed by vaginal Misoprostol and was least in Foley group.
11. NICU admission and APGAR <7 was more in vaginal Misoprostol group.
12. Tachysystole and Postpartum Haemorrhage was more in vaginal misoprostol when compared to oral misoprostol.

13. GIT effects were more with Vaginal Misoprostol.
14. Pyrexia was more with oral Misoprostol.
15. Multipara had shorter induction delivery interval when compared to Primipara in all the groups of Induction.
16. Oral Misoprostol required similar number of doses when compared to vaginal Misoprostol.
17. Foley induction had the maximum cost. cost of Oral Misoprostol and Vaginal Misoprostol was similar.

## **CONCLUSION**

Oral Misoprostol is safe ,effective and acceptable method compared to vaginal misoprostol and Foley catheter for cervical ripening and induction of labour in Prolonged pregnancy with a vital singleton and unfavourable cervix.Oral misoprostol is easy to administer,cost effective,has short induction delivery interval ,long shelf life at room temperature though it has disadvantages of increased incidence of Meconium staining of amniotic fluid.

# **ANNEXURES**

# **BIBLIOGRAPHY**

## BIBLIOGRAPHY

1. Leon Speroff, Peter W. Ramwell-Prostaglandin in reproductive Physiology-AM J Obstet & Gynecol 1970;August ;107:no. 70;1111-30.
2. ACOG Committee opinion, Number 283, May 2003. New U. S food and Drug administration labeling on Misoprostol use and Pregnancy. Obstet and Gynecol 2003;101;1049-50.
3. Gardosi J, Vanner T, Francis A. Gestational and and Induction of Labour for Prolonged Pregnancy. Br J Obstet & Gynecol 1997;104(7):792-97.
4. Staphanie A, Fisher MD, V. Paul Mackenzie, MD, Gregory A. L, Davies MD-a comparative study of safety and efficacy of oral and vaginal Misoprostol in induction of labour.
5. Schaff EA, Dicenzo R, Fielding SL. Comparison of Misoprostol plasma concentrations following Buccal and Sublingual a, dministration, Contraception 2005, Jan ;71(1):22-25
6. Muzonzini G, Hofmeyr GJ-Buccal or Sublingual Misoprostol for cervical ripening and Induction of labour. Cocharane Database syst Review 2004 Oct 18;(4):CD004221
7. Varsha Laxmikant Deshmukh, Kanan Avinash, Yelkar, Vandana waso-J of Obstet and Gynecol October 2013, vol 63, Issue 5, p 321-324.
8. Calder AA, embrey MP and Hillier K-Extra amniotic PGE2 for Induction of Labour at term. J Obstet and Gynecol Br common 1974;81(1):39-46
9. Ashalatha Shetty, Peter Danielian and Allan Templeton, BJOG volume 108, Issue 3, pages-238-243, March 2001.
10. Arulkumaran, Leonie Penna, K Bhasker Rao, Chapter 1, Physiopharmacologyof labour Page 1-25.

11. Modified from Bishop EH. Pelvis scoring for Elective induction. *Obstet and Gynecol* 1964;24:267.
12. Hall R, Duarte Gardea M, Harlass F, *Obstet Gynecol* 2002, June 99 (6):1044-8.
13. Rasheed R, Alam AA, Younus S, Raza F, *Pak Med Assoc*, 2007 Aug 57(8):404-7.
14. Induction of Labour-NICE clinical Guidelines 70. National institute for health and clinical Excellence, 2008.
15. Williams Obstetrics
16. Huges EG, Kelly AJ, Kavanagh J. Dinoprostone vaginal insert for cervical ripening and Induction of Labour a meta analysis –*Obstet and Gynecol* 2001, May;97(5 pt 2):847-55.
17. Kamath Rajalaxmi K, Srikar SV-*International Journal of Pharmaceutical Research and analysis* vol-4/issue 1/2014/70-74
18. Bernal AL. overview of current Research in parturition. *Exp Physiol* 2001;86(2):213-22.
19. Jindal Promila, Gill Bhupinder Kaur, Tirath Bala-*JO Obstet & gynecol* Vol. 57, No. 1. Jan/Feb 2007 Pg 42-47.
20. Fatemeh vahid Roudsari, Sedigheh Ayati, Marzieh Ghasemi, Maliheh Hasanzadeh Mofrad, Mohmed, Taghi Shakeri-*Iranian Journal of Pharmaceutical Research* (2011) 10(1):149-154 January 2010.
21. Luthy and Colleages, 2004, Yeast and associates 1999.
22. Use of prostaglandins-Dr. Kanan Yelikar, Govt. Medical College, Aurangabad-KFOG.
23. Bartha JL, Romero-Carmona R, Martinez Del Fresno P, Comino Delgado R. Bishop score and Transvaginal ultrasound for preinduction cervical assessment -randomised control trial. *Ultrasound Obstet and Gynecol* 2005;25(2):155-59.

24. Tuuli MG et al, Keegan MD, Odibo AO, Macones GA, Cahill AG-Am J Obstet and Gynecol 2013, Sep;201(3):237, e 1-7.
25. Adeniji Oa, Oladakun A, Olayemi O, Odukogbe AA, Tlesanmi AO-Obstet and Gynecol 2005 Feb;25(2) 134-9
26. Hoffman and Sciscione 2003, Maslow and Sweeny, 2000. Smith and Colleagues 2003.
27. Katrein Oude Rengerink, Marta Jozwiak, Jan Willaim de Leeuw, Irene de Graaf, Marielle G. van Pampus-AJOG
28. Olimpio B. Moraes Filho, Rivaldo M Albuquerque, Jose G Cecatti-Deptment of Obstet and Gynecol, School of Medicine-Scandinavia. Impact Factor:1. 99/2010;89(8):1045-52.
29. Sanchez-Ramos L, Kaunitz AM, Wears RL et al. Misoprostol for cervical ripening and induction of labour. Obstet and Gynecol 1997;89:633-42.
30. Hofmeyer GJ, Gulmezoglu AM, Pileggi. Vaginal Misoprostol for cervical ripening and induction of labour. Cocharane Collaboration-published in Cocharane library 2010, Issue 10-CD00941.
31. Alott Palmer 1993-Randomised control trial on membrane stripping of 195 women.
32. Scholars journal of applied Medical sciences 2014;2(3D):1164-1170-Nirmala Hanji, sreelatha S, Tejaswini. B. Hiremath.
33. Ian Donald-Practical Obstetric Problems-7<sup>th</sup> Edition-Chapter 26. Page 496-513.
34. Norwitz E, Shorge J O. Obstet and Gynecol at a glance, Blacewell Publishing-2001;p 121
35. ACOG-Practice Bulletein 1999a
36. Tenore JL-Methods of cervical ripening and Induction of labour. Am Fam Physician 2003;67:2123-28.



37. Khadija Bano, Mahjabeen, Shereen, Zufiquar Bhutta –A comparative study of Oral and Vaginal Misoprostol in Induction of labour.
38. Stock SJ, Ferguson E, Duffy A, Ford I, Chalmers J, Norman JE-Outcomes of elective Induction of labour compared to expectant management. BMJ 2012 May 10;344:e2838.
39. Pettker CM, Pocock SB, Smok DP, Lee SM, Devine PC. Transcervical Foley catheter with or without Oxytocin for cervical Ripening. A Randomised control trial Obstet and Gynecol 2008 Jun;111(6):1320-6.
40. Owalabi AT, Kuti O, Ogunlola IO. Randomised controlled trial of vaginal Misoprostol, Intracervical Foley catheter for cervical ripening and labour induction. J Obstet & Gynecol 2005 Aug;25(6):565-8.
41. J Ferdous, NN Khanam, MR Begum, S Akther. Cervical ripening comparative study between intracervical ballooning by Foley catheter and intravaginal Misoprostol tablet, Journal of Bangladesh college of Physicians and surgeons. Vol. 27, no 1, January 2009.
42. Fletcher HM, Mitchell S, Sison D, Fredrick T, Brown D-Intravaginal Misoprostol as a cervical ripening agent-Br Journal of obstet and Gynecol 1993;100.
43. Von Gemund and associates, 2004; Wing and Co-workers 1995 a, b.
44. Embrey MP, Mollison BG. The unfavourable cervix and induction of labour using cervical balloon. J Obstet Gynecol Br Commonw 1967;74:44.
45. ACOG-Practice Bulletin –Induction of Labour, Clinical Management Guidelines for Obstet and Gynecol. No. 107, August 2009, vol 114 :386-97.
46. Murthy Bhaskar Krishnamuthy, Arkalgud Mangala srikantaiah. J Obstet and Gynecol 2006-september/October. vol, 56, No. 5;page 413-41.

47. Blanks AM, Thorton S. The role of Oxytocin in parturition. Br J of Obstet and Gynecol 2003;110 suppl 20:46-51
48. Osion DM, The role of Prostaglandin in the initiation of Parturition. (Best Prac Res clin Obstet and Gynecol 2003;17(5):717-30.
49. Ezimokhai M, Nwabine JN. The use of Foley's catheter in ripening the unfavourable cervix prior to induction of labour. Br J Obstet gynecol 1980;281-82.
50. Cole and Bruck, 2000 Nguyen and Hoffman, 1995.
51. Chung JH, Huang WH, Rumney PJ, Garite TJ, Nageotte MP. A Prospective randomized controlled study to compare Misoprostol and foley catheter for labour induction-AM J Obstet and Gynecol 2003;189:1031-5.
52. Calder AA. Review of prostaglandin use in labour. br j obstet and Gynecol 1997;104;2-7.
53. Vahratian and colleagues, 2005, Vroenenraets and associates, 2005.
54. Nicole W, Karjane, Ellen L, Scott W. Walsh-Induction of labour using a Foley balloon with or without extra-amniotic saline infusion. Obstet and Gynecol 2006, Vol. 107, No. 2, Part 1, Feb 2006.
55. Vroenrates FP, Roumen FJ, Dehing CJ, Van den Akker ES, Aarates MJ, Scheve EJ. Bishop score and risk of Cesarean delivery after induction of labour in Nulliparous women. Obstet and Gynecol 2005;105(4):690-97.

# **PROFORMA**

## PROFORMA

- NAME: AGE:
- IP. NO: D. O. A: D. O. D:
- HISTORY OF PRESENTING ILLNESS:
- LMP: EDD:
- BOOKED & IMMUNIZED: Yes/No
- MENSTRUAL HISTORY: Regular/Irregular
- OBSTETRICAL HISTORY: G P L
- GESTATIONAL AGE CORRESPOND TO EARLY TRIMESTER SCAN: Yes/No
- H/O PREVIOUS POST DATED PREGNANCY: Yes/No
- MEDICAL COMPLICATIONS : Yes/No
  - GENERAL CONDITION
- PULSE RATE:
- BLOOD PRESSURE:
- TEMPERATURE:
- HEIGHT:
- WEIGHT: BMI:
- PEDAL ODEMA: Present /Absent
- ANEMIA: No Pallor/Pale
- CARDIOVASCULAR AND RESPIRATORY SYSTEMS:
- SIZE OF UTERUS:
- PRESENTATION: Cephalic/Non-Cephalic
- FOETAL HEART SOUND AND RATE:
- ESTIMATED FOETAL WEIGHT:
- CPD: Yes/No

- BISHOP'S SCORING <6: Yes/No
- USG DONE FOR FOETAL MATURITY, LIQUOR STATUS WITHIN NORMAL LIMITS: Yes/No
- ADMISSION CTG: Reactive/Non-Reactive
- Time of induction :
- FH Monitoring done every 15 mins:

[illegible]

Uterine contractions every 15 mins

[illegible]

Vaginal examination:

TIME			
BISHOP SCORE			

- Maternal adverse effects: Yes/No
- Hyperstimulation: Yes/No
- Induction Delivery interval:
- Liquor –Meconium stained :Yes /No
- Mode of delivery:Vaginal/Instrumental/Cesarean
  - Indication:
- Baby :Birth weight:
  - APGAR score: 1 min:                      5min:
  - Admitted in NICU: Yes/No
  - Perinatal mortality : Yes/No
    - If Yes, cause:
- Mother & Baby discharged in good condition:Yes/No
- Mother & Baby followed up: Yes/No

# **MASTER CHART**

# **ABBREVIATION**



## **ABBREVIATIONS**

IP. NO-In Patient Number

M-Male

F-Female

G. A-Gestational Age

Primi-Primigravida

G-Gravida

P-Para

L-Live

A-Abortion

BS0-Bishop Score at 0 hours

BS4-Bishpo Score at 4 hours

BS8-Bishop Score at 8 hours

Oxy use-Oxytocin Usage

MOD-Mode of Delivery

LN-Labour Natural

IDI-Induction Delivery Interval

LSCS-Lower Segment Cesarean Section

IND-Indication

MSAF-Meconium Stained Amniotic Fluid

NR CTG-NON Reactive CTG

OUTLET-Outlet Forceps

PPH-Postpartum Hemorrhage

NICU ADM-NICU Admission

## FOLEY INDUCTION

Sl.No.	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS	OXY USED	IDI	MOD	IND	COST
1	GOMATHI	21	4651	PRIMI	41W3D	3	5	11		Yes	13. 3	LN		65
2	ASMA	25	4694	PRIMI	41W1D	3	5	11			14. 15	LN		65
3	NANDHINI	27	4700	G2P1L1	41W1D	3	6	11		Yes	12. 15	LN		65
4	CHELLAKILI	20	4725	PRIMI	41W2D	3	5	11			14. 05	LN		65
5	DEEPA	20	4746	PRIMI	41W	3	5	11		Yes	14. 20	LN		65
6	MAHALAKSHMI	23	4755	PRIMI	41W3D	3	6	11		yes	15. 22	LN		65
7	RAMAYEE	25	4724	PRIMI	41W2D	3	6	12			13. 30	OUTLET	MATERNAL EFFORTS	65
8	SAVITHRI	22	4756	PRIMI	41W1D	2	5	11		Yes	14. 5	LN		65
9	USHA	24	4743	PRIMI	41W2D	3	5	11		Yes	15. 58	LN		65
10	SANGEETHA	25	5769	PRIMI	41W1D	2	5	11			14. 2	LN		65
11	KALPANA	22	4783	PRIMI	41W2D	3	5	11		Yes	15. 35	LN		65
12	GOMATHI	22	4796	PRIMI	41W3D	3	6	11		Yes	14. 59	LN		65
13	MEERA	23	4636	PRIMI	41W5D	3	5	11		Yes	15. 15	LN		65
14	MANJU	24	4668	PRIMI	41W3D	2	4	9			13. 3	LN		65
15	MANIMEGALAI	21	4635	PRIMI	41W2D	3	6	11			14. 35	LN		65
16	DHIVYA	19	4638	PRIMI	41W1D	2	5	9		Yes	16. 05	LN		65
17	HEMALATHA	20	4727	PRIMI	41W3D	2	5	11		Yes	14. 44	LN		65
18	ANANTHI	27	4713	G2P1L1	41W	3	6	12			12. 55	LN		65
19	BANUMATHI	24	4740	PRIMI	41W2D	2	3	3		Yes	16. 25	LSCS	FAILED INDUCTION	65
20	SIVARANJINI	20	4749	PRIMI	41W3D	2	3	3		Yes	15. 20	LSCS	FAILED INDUCTION	65
21	MAHESHWARI	28	4732	G3P2L2	41W3D	2	3	3		Yes	11. 1	LN	FAILED INDUCTION	65
22	DEIVANAI	26	4744	G2P1L1	41W1D	3	6				11. 55	LN		65

## FOLEY INDUCTION

Sl.No.	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS	OXY USED	IDI	MOD	IND	COST
23	POONGODI	21	5741	PRIMI	41W1D	2	3	3		Yes	14. 45	LSCS	FAILED INDUCTION	65
24	VASANTHI	31	4816	G3P2L2	41W2D	4	6				10. 25	LN		65
25	LALITHA	25	5842	G2P1L1	41W1D	2	6			Yes	11. 55	LN		65
26	RAJATHI	29	5855	G3P2L2	41W1D	3	6			Yes	10. 34	LN		65
27	MAHALAKSHMI	26	4873	G2P1L1	41W2D	3	6			Yes	12. 02	LN		65
28	UMA	34	4885	G3P2L1	41W3D	3	6				10. 13	LN		65
29	DEVIPRIYA	25	5923	G2P1L1	41W3D	3	6				11. 22	LN		65
30	KANAGA	23	5926	PRIMI	41W2D	2	6	11		Yes	13. 2	LN		65
31	RAJESHWARI	23	5971	G2P1L1	41W5D	2	5	12		Yes	12. 56	LN		65
32	ALAYAMANI	24	5842	PRIMI	41W3D	2	5	10		Yes	15. 05	LSCS	FAILURE TO PROGRESS	65
33	MAHESHWARI	26	4056	PRIMI	41W3D	4	6	12			14. 56	LN		65
34	SHREEPRIYA	19	5106	PRIMI	41W2D	1	2	3		Yes	16. 18	LSCS	FAILED INDUCTION	65
35	ALAGAMMAL	22	5076	PRIMI	41W	1	2	3		Yes	17. 53	LSCS	FAILED INDUCTION	65
36	MANJU	20	5159	PRIMI	41W	1	4	11		Yes	14. 55	LN		65
37	MEGALA	23	5067	G2P1L1	41W	2	5	11			12. 08	LN		65
38	FATHIMA	22	5314	PRIMI	41W2D	2	5	11			13. 25	LN		65
39	LAKSHMI	24	5348	PRIMI	41W3D	3	6	9		Yes	15. 3	LSCS	FAILURE TO PROGRESS	65
40	ASHA	25	5249	PRIMI	41W1D	2	3	3		Yes	16. 15	LSCS	FAILED INDUCTION	65
41	CHITHRA	24	5328	PRIMI	41W2D	3	5	9		Yes	16. 08	LN		65
42	SARASWATHI	23	5343	PRIMI	41W2D	3	6	11			14. 52	LN		65
43	SARITHA	22	5345	PRIMI	41W	2	5	11			13. 28	LN		65

**FOLEY INDUCTION**

Sl.No.	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS	OXY USED	IDI	MOD	IND	COST
44	RAJESHWARI	24	5346	PRIMI	41W1D	3	6	11			14. 5	LN		65
45	SATHYA	22	5938	PRIMI	41W2D	2	5	11		Yes	15. 25	LN		65
46	VENNNILA	21	5367	PRIMI	41W1D	3	6	11			15. 05	LN		65
47	SHENBAGAVALLI	21	5796	PRIMI	41W2D	2	5	11			13. 56	LN		65
48	MOHANAMBAL	23	5370	PRIMI	41W2D	2	5	11			15. 59	LN		65
49	VIJAYA	24	5377	PRIMI	41W4D	3	6	11		Yes	14. 05	LN		65
50	KARTHIGA	23	5334	PRIMI	41W	3	6	11		Yes	14. 45	LN		65
51	ASHWINI	27	5378	G2P1L1	41W	2	6	12		Yes	12. 05	LSCS	FAILURE TO PROGRESS	65
52	POONGODI	23	5379	PRIMI	41W2D	2	3	3		Yes	16. 55	LSCS	FAILED INDUCTION	65
53	SATHIYA	25	5387	G2P1L1	41W1D	2	6				11. 26	LN		65
54	DEVIPRIYA	23	5340	G2P1L1	41W1D	3	5	12			12. 25	LSCS	FAILURE TO PROGRESS	65
55	MALLIGA	25	5385	PRIMI	41W2D	2	3	3		Yes	16. 5	LSCS	FAILED INDUCTION	65
56	MANJU	20	5412	PRIMI	41W2D	1	5	10		Yes	15. 05	LSCS	FAILURE TO PROGRESS	65
57	ANJALAI	22	5414	PRIMI	41W1D	2	3	3		Yes	15. 58	LSCS	FAILED INDUCTION	65
58	SUGANYA	22	5434	PRIMI	41W3D	2	5	11		Yes	15. 15	LSCS	FAILURE TO PROGRESS	65
59	JOTHI	21	5435	PRIMI	41W2D	2	3	3		yes	17. 08	LSCS	FAILED INDUCTION	65
60	INDHUMATHI	20	5402	PRIMI	41W2D	2	6	11		Yes	14. 12	LN		65
61	KALAISELVI	28	5200	G3P2L2	41W6D	3	5	11			11. 2	LN		65
62	SEMBARUTHI	26	5220	G2P1L1	41W	2	5	11			11. 9	LN		65

## FOLEY INDUCTION

Sl.No.	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS	OXY USED	IDI	MOD	IND	COST
63	SONIYA	27	5829	G2P1L1	41W	3	6	10		Yes	12. 2	LN		65
64	REVATHY	21	5228	PRIMI	41W	2	4	10			15. 25	OUTLET	MATERNAL EFFORTS	65
65	SATHYA	22	5214	PRIMI	41W	3	6	11			15. 45	LN		65
66	SEETHA	21	5258	PRIMI	41W2D	3	6	11			14. 04	LN		65
67	BANUPRIYA	21	5226	PRIMI	41W	3	6	11			13. 5	LN		65
68	BHUVANESHWARI	24	5268	PRIMI	41W	3	5	11			14. 50	LN		65
69	DEVIKA	23	5257	PRIMI	41W	3	6	10		Yes	15. 52	LN		65
70	SANGEETHA	22	5240	PRIMI	41W2D	2	5	9		Yes	16. 5	LN		65
71	MERINA	26	5283	G2P1L1	41W2D	3	5	12		Yes	12. 38	LN		65
72	SANGEETHA	25	5278	G2P1L1	41W2D	3	6	12		Yes	13. 55	LN		65
73	MALATHI	28	5273	G2P1L1	41W2D	3	6				11. 02	LN		65
74	SEETHA	26	5189	PRIMI	41W3D	2	5	11		Yes	13. 42	LN		65
75	PUNITHA	26	5265	G2P1L1	41W1D	3	6	12		Yes	12. 1	LN		65
76	AMINA	31	6269	G3P2L2	41W	3	6				11. 15	LN		65
77	LAKSHMI	22	6266	PRIMI	41W1D	3	6	13			12. 5	LN		65
78	MOHNAPRIYA	30	6241	G3P2L1	41W	3	6				11	LN		65
79	MARIYAMMAL	31	6191	G2P1L1	41W1D	3	6				11. 53	LN		65
80	GANDHI	22	6201	PRIMI	41W4D	1	2	3		Yes	17. 35	LSCS	FAILED INDUCTION	65
81	SENTHAMARAI	30	6531	G3P2L2	41W	3	6				10. 45	LN		65
82	MEENA	22	6304	PRIMI	41W	2	6				11. 25	LN		65
83	KALAISELVI	25	6319	G2P1L1	41W2D	2	6			Yes	10. 33	LN		65
84	SUGUNA	27	6320	G2P1L1	41W1D	2	6			Yes	11. 38	LN		65
85	KARTHIGA	28	6419	G3P2L2	41W2D	2	6			Yes	10. 15	LN		65
86	PARVATHI	23	5451	PRIMI	41W	2	5	11		Yes	13. 53	LN		65

## FOLEY INDUCTION

Sl.No.	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS	OXY USED	IDI	MOD	IND	COST
87	MARIYAMMAL	24	6456	PRIMI	41W	2	6			Yes	11. 45	LN		65
88	SUGANYA	20	6439	PRIMI	41W1D	3	6	11		Yes	14. 12	OUTLET	MATERNAL EFFORTS	65
89	BHUVANESHWARI	23	6461	PRIMI	41W2D	3	6	11			13. 2	LN		65
90	THASLIMA	27	6474	G2P1L1	41W	3	5	11			12. 36	LSCS	FETAL DISTRESS	65
91	RAJALAKSHMI	22	6428	PRIMI	41W	1	2	3		Yes	16. 05	LSCS	FAILED INDUCTION	65
92	CHANDRA	25	6440	PRIMI	41W2D	3	6	12			13. 50	LN		65
93	GAYATHRI	21	6429	PRIMI	41W	2	5	10		Yes	16. 15	LSCS	FAILURE TO PROGRESS	65
94	NATHIYA	24	6502	PRIMI	41W	3	6	11			12. 25	LN		65
95	PALANIYAMMAL	24	6488	PRIMI	41W2D	2	5	11			13. 30	LN		65
96	JOTHI	25	6504	PRIMI	41W	2	5	11		Yes	14. 50	LN		65
97	GOMATHI	22	6534	PRIMI	41W	2	3	4		Yes	16. 45	LSCS	FAILED INDUCTION	65
98	VASANTHI	21	6132	PRIMI	41W2D	2	3	3		Yes	16. 05	LSCS	FAILED INDUCTION	65
99	FATHIMA	24	6509	PRIMI	41W	2	3	3		yes	15. 12	LSCS	FAILED INDUCTION	65
100	MAHALAKSHMI	26	6533	G2P1L1	41W3D	3	6				11. 15	LSCS	FETAL DISTRESS	65

Sl. No	NAME	AGE	IPNO	BABY WT(Kg)	BABY SEX	MSAF	NR CTG	APGAR<7	NICU ADM	PPH	TACHYSYSTOLE
1	GOMATHI	21	4651	3.3	F	-	-	-	-	-	-
2	ASMA	25	4694	2.7	M	-	-	-	-	-	-
3	NANDHINI	27	4700	3.4	M	-	-	-	-	-	-
4	CHELLAKILI	20	4725	3.2	F	-	-	-	-	-	-
5	DEEPA	20	4746	3	M	-	-	-	-	-	-
6	MAHALAKSHMI	23	4755	2.8	F	-	-	-	-	-	-
7	RAMAYEE	25	4724	2.5	M	-	-	-	-	-	-
8	SAVITHRI	22	4756	2.9	F	-	-	-	-	-	-
9	USHA	24	4743	2.7	F	-	-	-	-	-	-
10	SANGEETHA	25	5769	3.1	M	-	-	-	-	-	-
11	KALPANA	22	4783	3.2	F	-	-	-	-	-	-
12	GOMATHI	22	4796	3.6	M	-	-	-	-	-	-
13	MEERA	23	4636	2.6	M	-	-	-	-	-	-
14	MANJU	24	4668	3.4	M	-	-	-	-	-	-
15	MANIMEGALAI	21	4635	3.1	M	-	-	-	-	-	-
16	DHIVYA	19	4638	3	F	-	-	-	-	-	-
17	HEMALATHA	20	4727	2.9	F	-	-	-	-	-	-
18	ANANTHI	27	4713	3.25	M	-	-	-	-	-	-
19	BANUMATHI	24	4740	3.2	F	-	-	-	-	-	-
20	SIVARANJINI	20	4749	2.4	M	-	-	-	-	-	-
21	MAHESHWARI	28	4732	2.7	F	-	-	-	-	-	-
22	DEIVANAI	26	4744	2.5	M	-	-	-	-	-	-
23	POONGODI	21	5741	2.75	F	-	-	-	-	-	-
24	VASANTHI	31	4816	3.3	F	-	-	-	-	-	-
25	LALITHA	25	5842	2.8	F	-	-	-	-	-	-
26	RAJATHI	29	5855	2.7	M	-	-	-	-	-	-
27	MAHALAKSHMI	26	4873	2.75	M	-	-	-	-	-	-
28	UMA	34	4885	2.4	F	-	-	-	-	-	-
29	DEVIPRIYA	25	5923	3.6	F	-	-	-	-	-	-

Sl. No	NAME	AGE	IPNO	BABY WT(Kg)	BABY SEX	MSAF	NR CTG	APGAR<7	NICU ADM	PPH	TACHYSYSTOLE
30	KANAGA	23	5926	2.3	M	-	-	-	-	-	-
31	RAJESHWARI	23	5971	2.9	M	-	-	-	-	-	-
32	ALAYAMANI	24	5842	3.3	M	-	-	-	-	-	-
33	MAHESHWARI	26	4056	3.4	F	-	-	-	-	-	-
34	SHREEPRIYA	19	5106	3.1	M	-	-	-	-	-	-
35	ALAGAMMAL	22	5076	2.8	F	-	-	-	-	-	-
36	MANJU	20	5159	2.9	M	-	-	-	-	-	-
37	MEGALA	23	5067	3.2	F	-	-	-	-	-	-
38	FATHIMA	22	5314	2.8	F	-	-	-	-	-	-
39	LAKSHMI	24	5348	3	F	-	-	-	-	-	-
40	ASHA	25	5249	2.75	M	-	-	-	-	-	-
41	CHITHRA	24	5328	2.6	M	-	-	-	-	-	-
42	SARASWATHI	23	5343	3	F	-	-	-	-	-	-
43	SARITHA	22	5345	2.5	F	-	-	-	-	-	-
44	RAJESHWARI	24	5346	3.2	M	-	-	-	-	-	-
45	SATHYA	22	5938	3	F	-	-	-	-	-	-
46	VENNNILA	21	5367	2.7	F	-	-	-	YES	-	-
47	SHENBAGAVALLI	21	5796	3.4	F	-	-	-	-	-	-
48	MOHANAMBAL	23	5370	3.4	F	-	-	-	-	-	-
49	VIJAYA	24	5377	3.5	M	-	-	-	-	-	-
50	KARTHIGA	23	5334	2.5	M	-	-	-	-	-	-
51	ASHWINI	27	5378	2.5	F	-	-	-	-	-	-
52	POONGODI	23	5379	2.9	F	-	-	-	-	-	-
53	SATHIYA	25	5387	2.5	F	-	-	-	-	-	-
54	DEVIPRIYA	23	5340	3.25	M	-	-	-	-	-	-
55	MALLIGA	25	5385	2.9	M	-	-	-	-	-	-
56	MANJU	20	5412	3.2	M	-	-	-	-	-	-
57	ANJALAI	22	5414	2.75	F	-	-	-	-	-	-
58	SUGANYA	22	5434	2.5	F	-	-	-	-	-	-



Sl. No	NAME	AGE	IPNO	BABY WT(Kg)	BABY SEX	MSAF	NR CTG	APGAR<7	NICU ADM	PPH	TACHYSYSTOLE
59	JOTHI	21	5435	3. 1	F	-	-	-	-	-	-
60	INDHUMATHI	20	5402	2. 4	M	-	-	-	-	-	-
61	KALAISELVI	28	5200	2. 75	M	-	-	-	-	-	-
62	SEMBARUTHI	26	5220	2. 8	F	-	-	-	-	-	-
63	SONIYA	27	5829	3. 25	M	-	-	-	-	-	-
64	REVATHY	21	5228	2. 8	F	-	-	-	-	-	-
65	SATHYA	22	5214	2. 75	M	-	-	-	-	-	-
66	SEETHA	21	5258	2. 5	M	-	-	-	-	-	-
67	BANUPRIYA	21	5226	2. 9	M	-	-	-	-	-	-
68	BHUVANESHWARI	24	5268	2. 9	F	-	-	-	-	-	-
69	DEVIKA	23	5257	2. 5	F	-	-	-	-	-	-
70	SANGEETHA	22	5240	3. 4	M	-	-	-	-	-	-
71	MERINA	26	5283	2. 7	M	-	-	-	-	-	-
72	SANGEETHA	25	5278	3. 25	F	-	-	-	-	-	-
73	MALATHI	28	5273	2. 7	F	-	-	-	-	-	-
74	SEETHA	26	5189	2. 75	F	-	-	-	-	-	-
75	PUNITHA	26	5265	3. 1	M	-	-	-	-	-	-
76	AMINA	31	6269	2. 8	M	-	-	-	-	-	-
77	LAKSHMI	22	6266	2. 7	M	-	-	-	-	-	-
78	MOHNAPRIYA	30	6241	2. 5	M	-	-	-	-	-	-
79	MARIYAMMAL	31	6191	3. 5	F	-	-	-	-	-	-
80	GANDHI	22	6201	2. 75	F	-	-	-	-	-	-
81	SENTHAMARAI	30	6531	3	F	-	-	-	-	-	-
82	MEENA	22	6304	3. 2	M	-	-	-	-	-	-
83	KALAISELVI	25	6319	2. 75	M	-	-	-	-	-	-
84	SUGUNA	27	6320	3	M	-	-	-	-	-	-
85	KARTHIGA	28	6419	3. 2	F	-	-	-	-	-	-
86	PARVATHI	23	5451	2. 75	F	-	-	-	-	-	-

Sl. No	NAME	AGE	IPNO	BABY WT(Kg)	BABY SEX	MSAF	NR CTG	APGAR<7	NICU ADM	PPH	TACHYSYSTOLE
87	MARIYAMMAL	24	6456	3. 2	M	-	-	-	-	-	-
88	SUGANYA	20	6439	3	M	-	-	-	-	-	-
89	BHUVANESHWARI	23	6461	2. 75	M	-	-	-	-	-	-
90	THASLIMA	27	6474	2. 8	F	-	YES	YES	YES	YES	-
91	RAJALAKSHMI	22	6428	2. 5	M	-	-	-	-	-	-
92	CHANDRA	25	6440	3. 2	M	-	-	-	-	-	-
93	GAYATHRI	21	6429	3	M	-	-	-	-	-	-
94	NATHIYA	24	6502	2. 8	F	-	-	-	-	-	-
95	PALANIYAMMAL	24	6488	2. 7	F	-	-	-	-	-	-
96	JOTHI	25	6504	3. 1	F	-	-	-	-	-	-
97	GOMATHI	22	6534	3	M	-	-	-	-	-	-
98	VASANTHI	21	6132	3. 1	F	-	-	-	-	-	-
99	FATHIMA	24	6509	3. 3	M	-	-	-	-	-	-
100	MAHALAKSHMI	26	6533	2. 8	F	YES	YES	-	-	-	-

OUTLET







ORAL MISOPROSTOL

Sl. No	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
1	NEEELAMBAL	21	4773	PRIMI	41W1D	2	10			8. 10	LN		10
2	MUNIRA	24	4906	PRIMI	41W2D	3	10			8	OUTLET	MATERNAL EFFORTS	10
3	DEEPA SRI	24	4825	PRIMI	41W	2	10			8. 30	LN		10
4	ELLAMMAL	20	4274	PRIMI	41W2D	2	10			7. 40	LN		10
5	MADHU	21	4113	PRIMI	41W4D	2	8			11. 05	LN		10
6	JEYA	27	4092	G3P2L2	41W3D	4				5. 15	LN		5
7	SELVAKUMARI	19	4245	PRIMI	41W2D	2	6	13		12. 20	LN	OUTLET	15
8	CHELLAMMAL	20	4903	PRIMI	41W2D	3	10			7. 45	LN		10
9	KARTHIGA	24	4641	G2P1L1	41W	2	11			6. 20	LN		10
10	REVATHY	20	4541	PRIMI	41W3D	2	6			11. 15	LN		10
11	SUDHA	27	4818	G3P2L2	41W1D	2	11			6. 20	LN		10
12	JEYA	21	4945	PRIMI	41W2D	3	6	13		12. 15	OUTLET	MATERNAL EFFORTS	15
13	FLORENCE	22	4649	PRIMI	41W4D	2	11			9. 05	LN		10
14	USHARANI	21	4784	PRIMI	41W3D	2	6			10. 10	LN		10
15	NARMADHA	24	4735	PRIMI	41W1D	3	7			11. 40	LN		10
16	SUMATHI	24	4586	PRIMI	41W	2	7			11. 33	LN		10
17	RANI	28	4697	G3P1L1A1	41W3D	3				5. 40	LN		5
18	LAKSHMI	26	4348	G2P1L1	41W2D	4				5. 2	LN		5
19	NALINI	23	4319	PRIMI	41W2D	3	6			11. 35	LN		10
20	KUPAYEE	26	4439	G3P2L2	41W3D	4				4. 35	LN		5
21	GOVINDHAMMAL	20	4276	PRIMI	41W	3	6	13		12. 20	LN		15
22	POORANI	21	4204	PRIMI	41W3D	2	8			10. 10	LN		10
23	NANDHINI	24	4205	G2P1L1	41W2D	3	11			6. 50	LN		10
24	RADHA	23	4269	PRIMI	41W1D	2	6			10. 15	LN		10
25	POOVIZHI	20	4261	PRIMI	41W2D	3	10			9. 05	LN		10
26	GOMATHI	21	4098	PRIMI	41W1D	4	9			10. 20	VACUUM	MATERNAL EFFORTS	10

ORAL MISOPROSTOL

Sl. No	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
27	KOKILA	29	4910	G3P1L1	41W4D	4	12			6. 1	LN		10
28	PONNI	25	5977	PRIMI	41W	3	8			9. 45	LN		10
29	SUGANTHI	21	5961	PRIMI	41W1D	3	10			8. 10	LN		10
30	RAJESHWARI	27	5685	G2P1L1	41W	3	11			6. 45	LN		10
31	NITHYA	26	5751	G3P1L1	41W	3				5. 30	LN		5
32	SUDHA	24	5648	G2P1L1	41W3D	3	11			6. 10	LN		10
33	MEENACHI	22	5955	PRIMI	41W3D	2	10			7. 45	LN		10
34	KANMANI	22	5367	PRIMI	41W2D	2	10			7	LN		10
35	KAVITHA	20	5428	PRIMI	41W	2	8			9. 40	LN		10
36	ALAMELU	26	5246	G2P1L1	41W2D	2	11			6. 15	LN		10
37	PRIYA	19	5535	PRIMI	41W	2	8			7. 42	LN		10
38	SIDHESHWARI	21	5576	PRIMI	41W3D	2	8			10. 20	OUTLET	MATERNAL EFFORTS	10
39	SATHYA	28	5260	G3P1L1	41W3D	3				5. 45	LN		5
40	KAVERI	24	5768	G2P1L1	41W2D	2	11			6. 20	LN		10
41	KANIMOZHI	24	5888	G2P1L1	41W1D	3	11			6. 15	LN		10
42	ILAVARASI	24	5375	PRIMI	41W2D	2	6	11		13. 50	LN		15
43	USHA	21	5525	PRIMI	41W1D	2	10			8. 50	OUTLET	MATERNAL EFFORTS	10
44	KASTHURI	24	5819	G2P1L1	41W	3	11			6. 30	LN		10
45	THANGAMMAL	20	5920	PRIMI	41W	1	10			8. 20	LN		10
46	THULASI	24	5045	G2P1L1	41W2D	3				5. 35	LN		5
47	VIMALA	19	5057	PRIMI	41W1D	3	8			10. 20	LN		10
48	VANITHA	20	5631	PRIMI	41W2D	3	11			7. 10	LSCS	FETAL DISTRESS	10
49	DHANALAKSHMI	21	5564	PRIMI	41W1D	2	10			8. 05	LN		10
50	ANANDHI	22	5317	PRIMI	41W2D	2	6	11		14. 4	LN		15
51	VANI	19	5329	PRIMI	41W2D	3	6	11		13. 45	OUTLET	MATERNAL EFFORTS	15



ORAL MISOPROSTOL

Sl. No	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
52	GEETHA	20	5358	PRIMI	41W4D	1	6			10. 30	LN		10
53	SENTHAMARAI	22	5330	PRIMI	41W	4	10			8. 20	LN		10
54	MAHESHWARI	24	6094	PRIMI	41W2D	3	6	12		13. 20	LN		15
55	KANAGA	30	6040	G3P2L2	41W	3				5. 25	LN		5
56	VASANTHA	22	6206	PRIMI	41W3D	2	11			6. 50	LN		10
57	KADHAMBARI	21	6675	PRIMI	41W4D	2	10			7. 45	LN		10
58	SASIKALA	24	6096	PRIMI	41W2D	3	6	13		12	LSCS	FETAL DISTRESS	15
59	PARAMESHWARI	20	6536	PRIMI	41W2D	2	6			11. 50	OUTLET	MATERNAL EFFORTS	10
60	NEELAVENI	25	6529	G2P1L1	41W2D	3	11			6. 30	LN		10
61	DEVAKI	23	6597	PRIMI	41W1D	3	10			8. 10	LSCS	FETAL DISTRESS	10
62	GOWRI	24	6681	PRIMI	41W1D	2	9			10. 50	LN		10
63	KAVITHA	24	6220	PRIMI	41W2D	3	10			8. 15	LN		10
64	KALAIVANI	23	6636	PRIMI	41W3D	2	9			8. 45	LN		10
65	SUDHA	22	6663	PRIMI	41W1D	2	6			11. 3	LN		10
66	THENMOZHI	27	6279	PRIMI	41W2D	4	10			8	LSCS	FETAL DISTRESS	10
67	SUGANYA	24	6413	PRIMI	41W4D	4	5	11		13. 3	LN		15
68	REKHA	26	6326	G2A1	41W5D	4	10			8	LN		10
69	STELLA	22	6457	PRIMI	41W2D	4	10			7. 40	LN		10
70	MOOKAMMA	26	6437	PRIMI	41W2D	3	4	12		12. 42	LN		15
71	POONGODI	23	5451	PRIMI	41W1D	4	10			7	LN		10
72	KUPAMMAL	25	5360	PRIMI	41W	1	3	4		17. 20	LN		15
73	AYISHA	24	5402	PRIMI	41W4D	2	8			9	LN		10
74	TAMILARASI	22	5376	PRIMI	41W2D	2	8			9. 10	LN		10
75	LALITHA	25	5268	G3P2L1	41W2D	2	11			6. 5	LN		10
76	MOHANA	24	4329	PRIMI	41W	3	6			9. 20	LN		10

**ORAL MISOPROSTOL**

<b>Sl. No</b>	<b>NAME</b>	<b>AGE</b>	<b>IPNO</b>	<b>GRAVIDA</b>	<b>G. A</b>	<b>BS0</b>	<b>BS4</b>	<b>BS8</b>	<b>BS 12</b>	<b>IDI</b>	<b>MOD</b>	<b>IND</b>	<b>COST Rs.</b>
77	SUNDHARAVALLI	32	4123	G3P2L2	41W1D	3	10			5. 3	LN		10
78	PRAVEENA	22	4345	PRIMI	41W1D	2	5			11. 30	OUTLET	MATERNAL EFFORTS	10
79	GANDHIMATHI	23	4567	G4P2L2	41W1D	3				5. 20	LN		5
80	PARAMESHWARI	26	4678	G2P1L1	41W2D	3				5. 50	LN		5
81	KALAISELVI	27	4125	G2P1L1	41W2D	3	11			6. 10	LN		10
82	TAMILARASI	24	4890	G2A1	41W4D	3	10			7. 30	LN		10
83	SAKUNDHALA	24	6876	PRIMI	41W3D	3	9			8. 15	LN		10
84	VENNILA	23	5543	PRIMI	41W3D	1	3	4		16. 30	LSCS	FAILURE TO PROGRESS	15
85	MUNIYAMMAL	25	6832	PRIMI	41W1D	3	6			9. 10	LN		10
86	YUVARANI	22	6812	PRIMI	41W2D	2	7			8. 05	LN		10
87	MANJULA	26	6834	G2P1L1	41W	2	11			6. 4	LN		10
88	SHRIMATHI	22	7123	PRIMI	41W2D	2	8			9. 2	LN		10
89	JERINA	24	7234	PRIMI	41W1D	3	8			11. 2	LN		10
90	URMILA	23	7245	PRIMI	41W4D	2	10			9. 08	OUTLET	MATERNAL EFFORTS	10
91	KARTHIKA	21	7256	PRIMI	41W	3	10			8. 15	LN		10
92	REVATHI	20	7267	PRIMI	41W	1	9			10. 18	LN		10
93	SUDHA	22	7289	G2P1L1	41W1D	2	11			6. 5	LN		10
94	JEYA	24	7288	PRIMI	41W	3	8			9. 50	LN		10
95	VALARMATHI	25	7753	PRIMI	41W2D	2	8			10. 5	LN		10
96	GOVINDHI	24	7730	PRIMI	41W1D	3	8			10. 35	LN		10
97	DEIVANAI	23	7862	PRIMI	41W2D	2	6			11	LSCS	FETAL DISTRESS	10
98	PAPPATHI	22	7921	PRIMI	41W4D	2	3	4		17	LSCS	FAILURE TO PROGRESS	15

ORAL MISOPROSTOL

Sl. No	NAME	AGE	IPNO	GRAVIDA	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
99	AMUDHA	23	7866	G2P1L1	41W3D	3	11			6	LN		10
100	KRISHNAVENI	21	7970	PRIMI	41W1D	3	9			8.45	LN		10

Sl.No	NAME	AGE	IPNO	BABY SEX	BABY WT	MSAF	APGAR <7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
1	NEEELAMBAL	21	4773	M	3	-	-	-	-	-	-	-	-
2	MUNIRA	24	4906	M	2.3	-	-	-	-	-	YES	-	-
3	DEEPA SRI	24	4825	F	2.5	-	-	-	-	-	-	-	-
4	ELLAMMAL	20	4274	M	2.7	-	-	-	-	-	-	-	-
5	MADHU	21	4113	F	2.4	-	-	-	-	-	-	-	-
6	JEYA	27	4092	M	2.6	-	-	-	-	-	-	-	-
7	SELVAKUMARI	19	4245	F	2.7	-	-	-	-	-	-	-	-
8	CHELLAMMAL	20	4903	M	2.5	-	-	-	-	-	-	OUTLET	YES
9	KARTHIGA	24	4641	M	2.5	-	-	-	-	-	-	-	-
10	REVATHY	20	4541	M	2.4	-	-	-	-	-	-	-	-
11	SUDHA	27	4818	M	2.8	-	-	-	-	-	-	-	-
12	JEYA	21	4945	M	2.8	-	-	-	-	-	YES	-	-
13	FLORENCE	22	4649	F	3	-	-	-	-	-	-	-	-
14	USHARANI	21	4784	F	3.1	-	-	-	-	-	-	-	-
15	NARMADHA	24	4735	M	2.6	-	-	-	-	-	-	-	-
16	SUAMTHI	24	4586	F	2.5	-	-	-	-	-	-	-	-
17	RANI	28	4697	M	2.4	-	-	-	-	-	-	-	-
18	LAKSHMI	26	4348	F	2.7	-	-	-	-	-	-	-	YES
19	NALINI	23	4319	M	2.4	-	-	-	-	-	-	-	-
20	KUPAYEE	26	4439	F	2.5	-	-	-	-	-	-	-	-
21	GOVINDHAMMAL	20	4276	F	2.5	-	-	-	-	-	-	-	-
22	POORANI	21	4204	M	3.2	-	-	-	-	-	-	-	-
23	NANDHINI	24	4205	M	2.6	-	-	-	-	-	-	-	-
24	RADHA	23	4269	F	2.4	-	-	-	-	-	-	-	-
25	POOVIZHI	20	4261	M	2.5	-	-	-	-	-	-	-	-
26	GOMATHI	21	4098	F	2.6	-	-	-	-	-	-	-	-
27	KOKILA	29	4910	F	2.7	-	-	-	-	-	YES	-	-
28	PONNI	25	5977	F	2.5	-	-	-	-	-	-	-	-
29	SUGANTHI	21	5961	F	2.4	-	-	-	-	-	-	-	-

Sl.No	NAME	AGE	IPNO	BABY SEX	BABY WT	MSAF	APGAR <7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
30	RAJESHWARI	27	5685	M	2.9	-	-	-	-	-	-	-	-
31	NITHYA	26	5751	M	2.6	-	-	-	-	-	-	-	-
32	SUDHA	24	5648	F	2.75	-	-	-	-	-	-	-	-
33	MEENACHI	22	5955	F	2.25	-	-	-	-	-	-	-	-
34	KANMANI	22	5367	M	2.8	-	-	-	-	-	-	-	-
35	KAVITHA	20	5428	F	2.6	-	-	-	-	-	-	-	YES
36	ALAMELU	26	5246	M	3.3	-	-	-	-	-	-	-	-
37	PRIYA	19	5535	F	2.5	-	-	-	-	-	-	-	-
38	SIDHESHWARI	21	5576	M	2.5	-	-	-	-	-	-	YES	-
39	SATHYA	28	5260	MM	2.8	-	-	-	-	-	-	-	-
40	KAVERI	24	5768	M	2.4	-	-	-	-	-	-	-	-
41	KANIMOZHI	24	5888	F	2.7	-	-	-	-	-	-	-	-
42	ILAVARASI	24	5375	M	2.4	-	-	-	-	-	-	YES	-
43	USHA	21	5525	F	2.7	-	-	-	-	-	-	-	-
44	KASTHURI	24	5819	M	2.5	-	-	-	-	-	-	-	-
45	THANGAMMAL	20	5920	F	2.5	-	-	-	-	-	-	-	-
46	THULASI	24	5045	M	2.9	-	-	-	-	-	-	-	-
47	VIMALA	19	5057	M	2.6	-	-	-	-	-	-	-	-
48	VANITHA	20	5631	M	2.8	YES	-	YES	-	-	-	-	-
49	DHANALAKSHMI	21	5564	M	2.5	-	-	-	-	-	-	-	-
50	ANANDHI	22	5317	F	2.4	-	-	-	-	-	-	-	-
51	VANI	19	5329	F	2.7	-	-	-	-	-	YES	YES	-
52	GEETHA	20	5358	F	2.6	-	-	-	-	-	-	-	-
53	SENTHAMARAI	22	5330	F	2.4	-	-	-	-	-	-	-	-
54	MAHESHWARI	24	6094	M	2.5	-	-	-	-	-	-	-	-
55	KANAGA	30	6040	M	2.6	-	-	-	-	-	-	-	-
56	VASANTHA	22	6206	F	2.5	-	-	-	-	-	-	-	-
57	KADHAMBARI	21	6675	M	2.4	-	-	-	-	-	-	-	-
58	SASIKALA	24	6096	F	2.6	-	-	YES	-	-	-	-	-

Sl.No	NAME	AGE	IPNO	BABY SEX	BABY WT	MSAF	APGAR <7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
59	PARAMSHWARI	20	6536	M	2.5	-	-	-	-	-	-	-	YES
60	NEELANENI	25	6529	F	2.6	-	-	-	-	-	-	-	-
61	DEVAKI	23	6597	F	2.5	YES	-	YES	-	-	-	-	-
62	GOWRI	24	6681	M	2.8	-	-	-	-	-	-	-	-
63	KAVITHA	24	6220	M	2.7	-	-	-	-	-	-	-	-
64	KALAIVANI	23	6636	F	2.4	-	-	-	-	-	-	-	-
65	SUDHA	22	6663	F	2.75	-	-	-	-	-	-	-	-
66	THENMOZHI	27	6279	M	2.6	YES	-	YES	-	-	-	-	-
67	SUGANYA	24	6413	M	2.3	-	-	-	-	-	-	-	-
68	REKHA	26	6326	M	2.4	-	-	-	-	-	-	-	-
69	STELLA	22	6457	F	2.75	-	-	-	-	-	-	-	-
70	MOOKAMMA	26	6437	M	3.1	-	-	-	-	-	-	-	-
71	POONGODI	23	5451	F	2.8	-	-	-	-	-	-	-	-
72	KUPAMMAL	25	5360	M	2.5	-	-	-	-	-	-	-	-
73	AYISHA	24	5402	F	2.6	-	-	-	-	-	-	-	-
74	TAMILARASI	22	5376	M	2.4	-	-	-	-	-	-	-	-
75	LAITHA	25	5268	F	2.5	-	-	-	-	-	-	-	-
76	MOHANA	24	4329	M	2.75	-	-	-	-	-	-	-	-
77	SUNDHARAVALLI	32	4123	M	2.9	-	-	-	-	-	-	-	-
78	PRAVEENA	22	4345	F	3.4	-	-	-	-	-	-	-	-
79	GANDHIMATHI	23	4567	M	2.6	-	-	-	-	-	-	-	-
80	PARAMESHWARI	26	4678	F	2.4	-	-	-	-	-	-	-	-
81	KALAISELVI	27	4125	M	2.4	-	-	-	-	-	-	-	-
82	TAMILARASI	24	4890	M	3.3	-	-	-	-	-	-	-	YES
83	SAKUNDHALA	24	6876	F	3.1	-	-	-	-	-	-	-	-
84	VENNILA	23	5543	F	2.5	-	-	-	-	-	-	-	-
85	MUNIYAMMAL	25	6832	F	2.8	-	-	-	-	-	-	-	-
86	YUVARANI	22	6812	M	2.7	-	-	-	-	-	-	-	-
87	MANJULA	26	6834	F	2.4	-	-	-	-	-	-	-	-

Sl.No	NAME	AGE	IPNO	BABY SEX	BABY WT	MSAF	APGAR <7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
88	SHRIMATHI	22	7123	F	2. 5	-	-	-	-	-	-	-	-
89	JEERINA	24	7234	M	2. 6	-	-	-	-	-	-	-	-
90	URMILA	23	7245	M	2. 4	-	-	-	-	-	-	-	YES
91	KATHIKA	21	7256	F	2. 8	-	-	-	-	-	-	-	-
92	REVATHI	20	7267	M	2. 3	-	-	-	-	-	-	-	-
93	SUDHA	22	7289	M	2. 75	-	-	-	-	-	-	-	-
94	JEYA	24	7288	M	2. 6	-	-	-	-	-	-	-	-
95	VALARMATHI	25	7753	F	2. 8	-	-	-	-	-	-	-	-
96	GOVINDHI	24	7730	F	2. 75	-	-	-	-	-	-	-	-
97	DEIVANAI	23	7862	M	3. 1	-	YES	YES	YES	-	-	-	-
98	PAPPATHI	22	7921	M	2. 5	-	-	-	-	-	-	-	-
99	AMUDHA	23	7866	F	2. 6	-	-	-	-	-	-	-	-
100	KRISHNAVENI	21	7970	M	2. 4	-	-	-	-	-	-	-	-

VAGINAL MISOPROSTAL

Sl. No.	NAME	AGE	IP NO	GRAVID	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
1	TAMILARASI	20	4541	PRIMI	41W1D	2	6			11. 55	OUTLET	MATERNAL EFFORTS	10
2	MAHESH	22	4518	PRIMI	41W2D	3	6	13		12. 30	LSCS	FETAL DISTRESS	15
3	SAMANDHI	24	4390	G2A1	41W	2	10			7. 30	LN		10
4	REENA	26	4537	G2P1L1	41W	2	11			6. 45	LN		10
5	MENAKA	28	4573	G3P2L2	41W4D	3				5. 15	LN		5
6	JEYALAKSHMI	21	4656	PRIMI	41W3D	3	6	12		13. 20	LN		15
7	SRIDEVI	23	4584	PRIMI	41W2D	4	10			8	LN	OUTLET	10
8	REVATHY	22	4563	PRIMI	41W1D	1	6			10. 20	LN		10
9	NITHYA	21	4546	PRIMI	41W1D	3	6	11		13. 40	OUTLET	MATERNAL EFFORTS	15
10	MURUGAMMAL	22	4593	PRIMI	41W2D	2	6	11		14. 5	LN		15
11	MYTHILI	26	4557	G2P1L0	41W	3	10			8. 41	LN		10
12	DEVI	23	4578	G2P1L1	41W	2	11			6. 2	LN		10
13	DEVIKA	20	4501	PRIMI	41W3D	1	9			10. 20	LN		10
14	MARIYAMMAL	24	4604	G2A1	41W2D	3	10			8. 40	LN		10
15	JEYANTHI	24	4601	PRIMI	41W	2	10			9. 10	LN		10
16	SANDHIYA	25	4603	PRIMI	41W2D	3	8			11. 15	OUTLET	MATERNAL EFFORTS	10
17	RATHI	22	4133	PRIMI	41W3D	2	8			9. 10	LN		10
18	MEETACHI	29	4576	G2P1L1	41W	2	11			6. 5	LN		10
19	DHANALAKSHMI	23	4609	PRIMI	41W	2	7			8. 13	LN		10
20	ASHWINI	24	4639	PRIMI	41W	3	6			9. 25	LN		10
21	PAPPATHI	22	4565	PRIMI	41W2D	3	8			9. 40	LN		10
22	JOTHI	30	4695	G2P1L1	41W1D	4	12			6. 5	LN		10
23	MALA	23	4728	PRIMI	41W1D	4	9			10. 20	VACUUM	MATERNAL EFFORTS	10
24	CHANDRA	22	4605	PRIMI	41W6D	3	10			9. 50	LN		10
25	NANDHINI	24	4727	PRIMI	41W4D	2	6			10. 15	LN		10



## VAGINAL MISOPROSTAL

Sl. No.	NAME	AGE	IP NO	GRAVID	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
26	KALAIVANI	29	4740	G2P1L1	41W1D	3	11			6.35	LN		10
27	MADHIYALAGI	25	4734	PRIMI	41W	2	8			10.37	LN		10
28	NITHYA	27	5739	PRIMI	41W	2	6	13		12.20	LN		15
29	SAVITHRI	32	5714	G4P3L2	41W2D	4				4.48	LN		5
30	KANAGA	21	5720	PRIMI	41W3D	3	6			11.32	LN		10
31	NATHIYA	20	5751	PRIMI	41W2D	1	3	4		16.30	LSCS	FAILURE TO PROGRESS	15
32	SASIKALA	24	5716	PRIMI	41W2D	3	9			8.10	LN		10
33	CHANDRA	25	5737	PRIMI	41W1D	3	10			7.30	LN		10
34	KARTHIGA	28	5763	G2P1L1	41W	3	11			6.2	LN		10
35	RASATHI	31	5769	G3P2L2	41W3D	3				5.52	LN		5
36	JEYANTHI	30	5650	G3P2L2	41W	3				5.20	LN		5
37	JOTHI	23	5599	PRIMI	41W3D	2	5			11.15	OUTLET	MATERNAL EFFORTS	10
38	GOMATHI	21	5648	PRIMI	41W2D	3	10			7.2	LN		10
39	MURUGAYEE	24	5667	PRIMI	41W2D	3	6			9.10	LN		10
40	SIVARANJANI	31	5675	G2P1L1	41W4D	2	11			6.4	LN		10
41	PUSHPA	33	5674	G3L2L2	41W2D	3				5.45	LN		5
42	PARAMESHWARI	24	5689	PRIMI	41W1D	2	8			10.33	OUTLET	MATERNAL EFFORTS	10
43	VALARMATHI	23	5691	PRIMI	41W4D	2	8			7.25	LN		10
44	ANJUGAM	27	5552	G2P1L1	41W4D	2	11			6.20	LN		10
45	NAZMA	25	5658	PRIMI	41W2D	2	8			9.40	LN		10
46	POUNAMMAL	26	5718	G2A1	41W2D	2	10			7.10	LN		10
47	MEENA	22	5172	PRIMI	41W	2	10			7.30	LN		10
48	SARIKA	25	5927	G2P1L1	41W3D	3	11			6.45	LN		10
49	MEGALA	28	5930	G3P2L2	41W1D	3				5.25	LN		5
50	KALPANA	23	5875	PRIMI	41W	3	11			6.32	LN		10
51	KUMUDHA	22	5935	PRIMI	41W2D	2	9			8.40	LN		10

VAGINAL MISOPROSTAL

Sl. No.	NAME	AGE	IP NO	GRAVID	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
52	KUPAYEE	24	5937	PRIMI	41W1D	3	10			8. 10	LSCS	FETAL DISTRESS	10
53	SELVI	24	5936	PRIMI	41W4D	2	9			10. 25	LN		10
54	JANAKI	21	5960	PRIMI	41W1D	3	9			8. 40	LN		10
55	SRIDEVI	26	5962	G2P1L1	41W	3	11			6. 05	LSCS	FETAL DISTRESS	10
56	PAVITHRA	24	5941	PRIMI	41W3D	2	3	4		17. 10	LSCS	FAILED INDUCTION	15
57	VIMALA	23	5956	PRIMI	41W	2	6			11	LSCS	FETAL DISTRESS	10
58	THAMARASELVI	24	5600	G2A1	41W	3	8			10. 30	LN		10
59	BABY	24	5963	PRIMI	41W	2	8			10. 15	LN		10
60	POONGODHAI	25	5804	PRIMI	41W	3	8			9. 50	LN		10
61	SARASWATHI	22	5535	PRIMI	41W5D	2	10			8. 05	LN		10
62	KALASELVI	26	5045	G2P1L1	41W3D	3	11			7. 08	LSCS	FETAL DISTRESS	10
63	RENUKADEVI	27	5992	PRIMI	41W1D	3	8			10. 19	LN		10
64	VIJAYALAKSHMI	33	5898	G3P2L1	41W2D	3				5. 36	LN		5
65	ANGAMMAL	24	5768	PRIMI	41W4D	1	10			8. 1	LN		10
66	RENUPRIYA	25	5788	G2P1L1	41W3D	3	11			6. 35	LN		10
67	KAVITHA	23	6456	PRIMI	41W2D	2	10			8. 55	OUTLET	MATERNAL EFFORTS	10
68	REVATHI	21	6944	PRI MI	41W	2	6	11		13. 4	LN		15
69	PALANIYAMMAL	23	6691	PRIMI	41W1D	3	11			6. 1	LN		10
70	PUNITHA	23	6871	PRIMI	41W2D	2	11			6. 2	LN		10
71	KALASELVI	22	6212	PRIMI	41W1D	4				5. 35	LN		5
72	KRISHNAVENI	21	6619	PRIMI	41W2D	3				5. 45	LN		5
73	THULASIYAMMAL	21	6084	PRIMI	41W1D	2	7			11. 45	LN		10
74	VIJAYALAKSHMI	25	6609	PRIMI	41W2D	3	7			11. 33	LN		10
75	AYYAMMAL	24	6040	PRIMI	41W	2	6			10. 10	LN		10

VAGINAL MISOPROSTAL

Sl. No.	NAME	AGE	IP NO	GRAVID	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
76	REVATHY	22	6675	PRIMI	41W2D	2	11			9.05	LN		10
77	ILAMATHY	26	6276	PRIMI	41W4D	3	6	13		12.05	OUTLET	MATERNAL EFFORTS	15
78	RATHIPRIYA	28	6204	G2P1L1	41W1D	2	11			6.3	LN		10
79	MAHESHWARI	26	6205	PRIMI	41W	2	6			11.2	LN		10
80	VAIDHESHWARI	24	6269	PRIMI	41W2D	3	7			10	LN		10
81	SOUNDHARYA	26	6998	G3P2L2	41W1D	2	11			6.25	LN		10
82	MANJU	24	6910	PRIMI	41W2D	3	10			7.35	LN		10
83	ASVINI	22	6977	PRIMI	41W2D	2	6	13		12.25	LN		15
84	POOMANI	24	6685	G2P1L1	41W	4				5.1	LN		5
85	VIJAYASHANTHI	23	6751	PRIMI	41W3D	2	8			11	LN		10
86	MANI	22	6648	PRIMI	41W3D	2	10			7.40	LN		10
87	PAVAYEE	23	6647	PRIMI	41W2D	2	10			8.20	LN		10
88	KAVITHA	21	6160	PRIMI	41W2D	3	10			8	OUTLET	MATERNAL EFFORTS	10
89	UDHAYKUMARI	24	6768	PRIMI	41W	2	10			8.10	LN		10
90	AMIRA JEBIN	22	6788	PRIMI	41W1D	2	8			9.25	LN		10
91	SUMATHI	26	6375	G2P1L1	41W2D	2	8			9	LSCS	FETAL DISTRESS	10
92	KANMANI	24	6855	PRIMI	41W3D	1	3	4		17.3	LSCS	FAILURE TO PROGRESS	15
93	SARASU	28	6768	G2P1L1	41W	4	10			7	LSCS	FETAL DISTRESS	10
94	NAGARANI	26	6031	PRIMI	41W2D	3	4	12		12.32	LN		15
95	JANAKI	27	6819	G2A1	41W	4	10			8	LSCS	FETAL DISTRESS	10
96	VALLI	29	6633	PRIMI	41W	4	10			7.55	LSCS	FETAL DISTRESS	10
97	AMUDHA	23	6835	PRIMI	41W3D	4	5	11		13.3	LN		15

## VAGINAL MISOPROSTAL

Sl. No.	NAME	AGE	IP NO	GRAVID	G. A	BS0	BS4	BS8	BS 12	IDI	MOD	IND	COST Rs.
98	UMA MAHESHWARI	24	6992	PRIMI	41W2D	4	10			8. 10	LSCS	FETAL DISTRESS	10
99	CHANDRALEKHA	26	6842	PRIMI	41W1D	2	6			10. 50	LN		10
100	CHINNAPONNU	24	6890	PRIMI	41W	2	9			8. 25	LN		10

Sl. No.	NAME	AGE	IPNO	BABY WT	BABY SEX	MSAF	APGAR<7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
1	TAMILARASI	20	4541	3	M	-	-	-	-	-	-	-	YES
2	MAHESH	22	4518	3. 25	M	-	-	YES	-	-	-	-	-
3	SAMANDHI	24	4390	2. 75	F	-	-	-	-	-	-	-	-
4	REENA	26	4537	2. 6	F	-	-	-	-	YES	-	-	-
5	MENAKA	28	4573	3. 1	M	-	-	-	-	-	-	-	-
6	JEYALAKSHMI	21	4656	3. 25	F	-	-	-	-	-	-	YES	-
7	SRIDEVI	23	4584	2. 75	M	-	-	-	-	-	-	-	-
8	REVATHY	22	4563	3. 4	F	-	-	-	-	-	-	OUTLET	-
9	NITHYA	21	4546	3. 1	M	-	-	-	-	-	YES	YES	-
10	MURUGAMMAL	22	4593	2. 75	F	-	-	-	-	-	-	-	-
11	MYTHILI	26	4557	3. 7	M	-	-	-	-	-	-	-	-
12	DEVI	23	4578	3	M	-	-	-	-	-	-	-	-
13	DEVIKA	20	4501	3. 5	F	-	-	-	-	-	-	-	-
14	MARIYAMMAL	24	4604	2. 7	F	-	-	-	-	-	-	-	YES
15	JEYANTHI	24	4601	2. 8	M	-	-	-	-	-	-	-	-
16	SANDHIYA	25	4603	2. 5	F	-	-	-	-	-	-	-	YES
17	RATHI	22	4133	2. 75	F	-	-	-	-	-	-	-	-
18	MEETACHI	29	4576	2. 5	F	-	-	-	-	-	-	-	-
19	DHANALAKSHMI	23	4609	3	F	-	-	-	-	-	-	-	-
20	ASHWINI	24	4639	3. 2	M	-	-	-	-	-	-	-	-
21	PAPPATHI	22	4565	3. 2	M	-	-	-	-	-	-	-	-
22	JOTHI	30	4695	3	F	-	-	-	-	-	YES	-	-
23	MALA	23	4728	3. 75	M	-	-	-	-	-	-	-	-
24	CHANDRA	22	4605	3. 3	F	-	-	-	-	-	-	-	-
25	NANDHINI	24	4727	3. 2	F	-	-	-	-	-	-	-	-
26	KALAIVANI	29	4740	3	F	-	-	-	-	-	-	-	-
27	MADHIYALAGI	25	4734	3. 25	M	-	-	-	-	-	-	-	-

Sl. No.	NAME	AGE	IPNO	BABY WT	BABY SEX	MSAF	APGAR<7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
28	NITHYA	27	5739	2. 7	M	-	-	-	-	-	-	-	-
29	SAVITHRI	32	5714	2. 8	F	-	-	-	-	-	-	-	YES
30	KANAGA	21	5720	2. 5	M	-	-	-	-	-	-	-	-
31	NATHIYA	20	5751	3	M	-	-	-	-	-	-	-	-
32	SASIKALA	24	5716	2. 7	F	-	-	-	-	-	-	-	-
33	CHANDRA	25	5737	3	M	-	-	-	-	-	-	-	YES
34	KARTHIGA	28	5763	2. 8	M	-	-	-	-	-	-	-	-
35	RASATHI	31	5769	3. 25	F	-	-	-	-	-	-	-	-
36	JEYANTHI	30	5650	3. 25	M	-	-	-	-	-	-	-	-
37	JOTHI	23	5599	2. 75	F	-	-	-	-	-	-	-	-
38	GOMATHI	21	5648	2. 8	M	-	-	-	-	-	-	-	-
39	MURUGAYEE	24	5667	2. 7	M	-	-	-	-	-	-	-	-
40	SIVARANJANI	31	5675	2. 7	F	-	-	-	-	-	-	-	-
41	PUSHPA	33	5674	3	F	-	-	-	-	-	-	YES	-
42	PARAMESHWARI	24	5689	2. 75	F	-	-	-	-	-	-	YES	-
43	VALARMATHI	23	5691	3. 4	M	-	-	-	-	-	-	-	-
44	ANJUGAM	27	5552	3	M	-	-	-	-	-	-	-	-
45	NAZMA	25	5658	2. 8	F	-	-	-	-	-	-	-	YES
46	POUNAMMAL	26	5718	3. 6	F	-	-	-	-	-	-	-	-
47	MEENA	22	5172	3	M	-	-	-	-	-	-	-	-
48	SARIKA	25	5927	3. 25	F	-	-	-	-	-	-	-	-
49	MEGALA	28	5930	3. 5	M	-	-	-	-	-	-	-	-
50	KALPANA	23	5875	3	F	-	-	-	-	-	-	-	-
51	KUMUDHA	22	5935	3. 25	M	-	-	-	-	-	-	-	-
52	KUPAYEE	24	5937	3. 2	F	YES	-	YES	-	-	-	-	-
53	SELVI	24	5936	2. 8	M	-	-	-	-	-	-	-	-
54	JANAKI	21	5960	2. 75	F	-	-	-	-	-	-	-	-

Sl. No.	NAME	AGE	IPNO	BABY WT	BABY SEX	MSAF	APGAR<7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
55	SRIDEVI	26	5962	3.3	F	-	-	-	-	-	-	-	-
56	PAVITHRA	24	5941	2.75	F	YES	-	YES	-	-	-	-	-
57	VIMALA	23	5956	3.1	M	-	YES	YES	YES	-	-	-	-
58	THAMARAISELVI	24	5600	2.8	M	-	-	-	-	-	-	-	-
59	BABY	24	5963	2.7	F	-	-	-	-	-	-	-	YES
60	POONGODHAI	25	5804	2.5	F	-	-	-	-	-	-	-	-
61	SARASWATHI	22	5535	3.1	M	-	-	-	-	-	-	-	-
62	KALAISELVI	26	5045	3.2	F	-	-	YES	-	-	-	-	-
63	RENUKADEVI	27	5992	2.4	M	-	-	-	-	-	-	-	-
64	VIJAYALAKSHMI	33	5898	2.6	F	-	-	-	-	-	-	-	-
65	ANGAMMAL	24	5768	2.4	M	-	-	-	-	-	-	-	-
66	RENUPRIYA	25	5788	3	F	-	-	-	-	-	-	-	-
67	KAVITHA	23	6456	2.4	F	-	-	-	-	-	-	-	-
68	REVATHI	21	6944	2.4	F	-	-	-	-	-	-	YES	-
69	PALANIYAMMAL	23	6691	2.5	M	-	-	-	-	-	-	-	-
70	PUNITHA	23	6871	2.3	F	-	-	-	-	-	-	-	-
71	KALAISELVI	22	6212	2.8	M	-	-	-	-	-	-	-	-
72	KRISHNAVENI	21	6619	2.6	M	-	-	-	-	-	-	-	-
73	THULASIYAMMAL	21	6084	2.8	F	-	-	-	-	-	-	-	-
74	VIJAYALAKSHMI	25	6609	3	F	-	-	-	-	-	-	-	-
75	AYYAMMAL	24	6040	2.9	M	-	-	-	-	-	-	-	-
76	REVATHY	22	6675	2.6	M	-	-	-	-	-	-	-	-
77	ILAMATHY	26	6276	2.4	F	-	-	-	-	-	YES	-	-
78	RATHIPRIYA	28	6204	2.25	M	-	-	-	-	-	-	-	-
79	MAHESHWARI	26	6205	2.6	M	-	-	-	-	-	-	-	-
80	VAIDHESHWARI	24	6269	2.5	F	-	-	-	-	-	-	-	-
81	SOUNDHARYA	26	6998	2.7	F	-	-	-	-	-	-	-	-

Sl. No.	NAME	AGE	IPNO	BABY WT	BABY SEX	MSAF	APGAR<7	NR CTG	NICU ADM	PPH	PYREXIA	TACHY SYSTOLE	GIT EFFECTS
82	MANJU	24	6910	2. 6	F	-	-	-	-	-	-	-	YES
83	ASVINI	22	6977	2. 4	M	-	-	-	-	-	-	-	-
84	POOMANI	24	6685	2. 4	F	-	-	-	-	-	-	-	-
85	VIJAYASHANTHI	23	6751	2. 3	M	-	-	-	-	-	-	-	-
86	MANI	22	6648	2. 8	F	-	-	-	-	-	-	-	-
87	PAVAYEE	23	6647	2. 7	M	-	-	-	-	-	-	-	-
88	KAVITHA	21	6160	32. 4	F	-	-	-	-	-	-	-	-
89	UDHAYKUMARI	24	6768	2. 6	M	-	-	-	-	-	-	-	-
90	AMIRA JEBIN	22	6788	2. 5	F	-	-	-	-	-	-	-	-
91	SUMATHI	26	6375	2. 4	M	-	-	-	-	-	-	-	-
92	KANMANI	24	6855	2. 8	F	-	-	YES	-	-	-	-	-
93	SARASU	28	6768	2. 6	F	-	-	-	-	-	-	-	-
94	NAGARANI	26	6031	2. 7	M	-	YES	YES	YES	-	-	-	-
95	JANAKI	27	6819	2. 5	F	-	-	-	-	-	-	-	-
96	VALLI	29	6633	2. 4	M	-	-	YES	-	-	-	-	-
97	AMUDHA	23	6835	3. 1	M	-	YES	YES	YES	-	-	-	-
98	UMA MAHESHWARI	24	6992	2. 6	F	-	-	-	-	-	-	-	-
99	CHANDRALEKHA	26	6842	2. 3	F	-	-	YES	-	-	-	-	-
100	CHINNAPONNU	24	6890	2. 5	M	-	-	-	-	-	-	-	-